

APPENDIX B
Spiking Report

METALS AND CHLORINE SPIKES PROTOCOL

INCINERATOR COMPREHENSIVE PERFORMANCE TESTING

VEOLIA ENVIRONMENTAL SERVICES
SAUGET, IL
January 16, 2014

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Quality Control

Chemicals for Spikes

The following spikes have been selected for incinerator testing:

Mercury (II) nitrate hydrate	[high volatility metal]
Lead nitrate	[medium volatility metal]
Chromic acid	[low volatility metal]
Hexachloroethane	[chlorine source]

These chemicals were purchased from suppliers and delivered to the facility. Specification sheets or Certificates of Analysis with any applicable lot or batch numbers are provided for each of these chemicals in the attachments to this writing.

The Mercury (II) nitrate hydrate will be put into solution with de-ionized (DI) water and slightly acidified with concentrated Omni-trace nitric acid (specification sheet included in attachments) to help prevent any precipitation of solids. Pre-determined amounts of this solution will be fed during incinerator testing within plastic vials placed with the solid feed charges. Because the targeted mercury feed rate is significantly greater for the testing of No. 4 Incinerator, two different concentrations of Mercury nitrate solution batches will be prepared for use as spikes in the incinerator feeds.

The Lead nitrate will be put into re-closable plastic bags in pre-determined amounts and fed to the incinerators during testing by placing them with the solid feed charges.

The Chromic acid with a concentration of 35% will be fed to the incinerators at a pre-determined rate via metering pumps on an electronic scale device.

The Hexachloroethane will be put into re-closable plastic bags in pre-determined amounts and fed to the incinerators during testing by placing them with the solid feed charges.

Certification of Spike Measuring Equipment

The Mercury (II) nitrate hydrate will be measured out for the prepared solution in the facility laboratory based on calculated values. A mass balance certified for accuracy by a professional scale services company will be used. It is also calibrated before use as part of daily laboratory protocol. Class A graduated flasks and other selected laboratory equipment will be used for measuring out liquids for the given solution. A certified repipet dispenser will be used for filling individual vials. The concentration of the prepared Mercury solution will be confirmed by the laboratory.

The weighing devices used for measuring out the Lead nitrate spike bags and the Hexachloroethane spike bags are electronic scales with digital readout and control panels. They have been calibrated prior to use by a professional scale services company. Each scale panel bears a sticker indicating the calibration date and a written report on the calibration is

prepared. In addition, the procedures for preparing these spike bags require the scales to be zeroed on a consistent basis during use.

The device used for feeding Chromic acid combines a holding tank, metering pumps and an electronic scale with a digital readout and control panel. It has been calibrated prior to use by a professional scale services company. The scale panel bears a sticker indicating the calibration date and a written report on the calibration is prepared.

Chain of Custody

The purchased Mercury (II) nitrate hydrate will be recorded in the Product and Reagents Logbook upon receipt, assigned a tracking number and stored in the laboratory. The jars of product will be opened at the time designated to prepare the Mercury solutions. When the Mercury solutions have been prepared, the gasketed 5-gallon pails used to contain the solution will be sealed with tape across the lid with the Laboratory Manager's signature on the tape on two sides of the pail. When the pails are not in visual contact of the Laboratory Manager, they will be stored in his locked office. When the vials of Mercury solution are to be prepared, the tape on the pails must be intact with no sign it has been tampered with or been cut. If the integrity of the tape has been compromised, the Mercury solution will be considered invalid and a new solution will have to be prepared.

The Lead nitrate, Hexachloroethane and Chromic acid will be stored in their original shipping packaging in a designated indoor storage area within the facility. The Lead nitrate and Hexachloroethane containers will be opened when it is time to prepare the individual spike packages. The drums of Chromic acid will be opened as needed during the incinerator testing when they are placed on the feeding device.

Spike Preparation Procedures

The procedures written below are the steps taken by personnel when preparing and/or measuring out and documenting the spikes used for incinerator testing.

Mercury Nitrate Spike Solution Preparation Procedure

NOTE: Calculations for preparing Mercury solutions of a defined quantity and concentration are included as attachments to this writing.

1. Obtain the necessary chemicals and laboratory equipment.
2. Fill a 100 ml Class A graduated flask to line with DI water and pour into a designated 5 gallon pail.
3. Repeat as needed for additional DI water depending on the final volume of solution needed. The last 100 ml portion will be filled for later in the procedure to use in rinsing equipment and completing the final solution volume.

4. Fill the appropriate Class A graduated flask(s) with the applicable volume of Nitric acid and pour it into the 5 gallon pail. The volume needed will represent 10% of the total volume of solution needed.
5. Tare a beaker on the mass balance then add the designated amount of Mercury (II) nitrate hydrate.
6. Empty the beaker into the 5 gallon pail. Then rinse the beaker three times with an appropriate portion of the reserved 100 ml DI water.
7. After rinsing is complete, add the remaining DI water in the 100 ml flask to the solution in the 5 gallon pail to obtain the final desired volume.
8. Record the quantities of chemicals placed in the 5 gallon pail in the Laboratory logbook.
9. Stir the solution with a rinsed plastic tube until there is no visual evidence of undissolved Mercury (II) nitrate hydrate.
10. Pull 2 aliquots of approximately 50 ml of Mercury solution for subsequent analysis.
11. Close the 5 gallon pail with a gasketed lid and follow the requirements for Chain of Custody for the Mercury solution.

Mercury Spike Vial Preparation Procedure

1. Obtain the applicable Mercury solution and plastic vials.
2. Rinse the repipet dispenser and transfer container used for measuring Mercury nitrate solution first with DI water, then twice with a portion of the solution.
3. Transfer desired amount of the selected Mercury nitrate solution from the storage vessel to the transfer container. The concentration of the solution is dependent on which incinerator the spike vials are being prepared for.
4. Position equipment within a laboratory hood.
5. Calibrate the repipet-pump by selecting a Class A volumetric flask of the applicable size and dispensing the solution into the flask while adjusting the repipet pump as needed to achieve the specific volume. This calibration step should be repeated after every 100 vials are filled.
6. Number each vial needed with a label starting at number "1".

7. Using the repipet-pump, transfer the specified amount of Mercury nitrate solution into the vial. The amount of solution transferred to the vial is dependent on which incinerator the spike vials are being prepared for.
8. Document the vial number and volume on the spike vial sheet.
9. Securely seal the vial and carefully place it into a plastic storage bucket.
10. Repeat steps for number of spike vials needed.
11. When complete, close the plastic storage buckets and place in designated area. All personnel involved in preparing the vials must have their names written on the spike vial sheet.

Lead Nitrate Spike Bag Preparation Procedure

1. Obtain Lead nitrate raw material and re-closable plastic bags.
2. Position electronic scales in the selected area and zero the scales before use.
3. Put on required PPE before exposure to the Lead nitrate. Personnel directly handling Lead nitrate need dust mask, Tyvek suit, and nitrile gloves.
4. Number each plastic bag needed with a label starting at "L-1".
5. Open a bag of raw material and use scoop or equivalent device to place the specified amount of Lead nitrate into the numbered plastic bag.
6. Document the bag number and weight on the spike bag sheet.
7. Securely seal the bag and carefully place it into a plastic storage drum.
8. Repeat steps for number of spike bags needed. Re-zero the scale at least once every 100 bags.
9. When complete, close and seal the plastic storage drums and place in the designated area. All personnel involved in preparing the bags must have their names written on the spike bag sheet.

Hexachloroethane Spike Bag Preparation Procedure

1. Obtain Hexachloroethane raw material and re-closable plastic bags.
2. Position electronic scales in the selected area and zero the scales before use.

3. Put on required PPE before exposure to the Hexachloroethane. Personnel directly handling Hexachloroethane need a full-face respirator with OV/AG cartridges, Tyvek suit, and nitrile gloves.
4. Number each plastic bag needed with a permanent marker starting at "H-1".
5. Open a bag of raw material and use scoop or equivalent device to place specified amount of Hexachloroethane and/or PVC into the numbered plastic bag.
6. Document the bag number and weight on the spike bag sheet.
7. Securely seal the bag and carefully place it into a plastic storage drum.
8. Repeat steps for number of spike bags needed. Re-zero the scale at least once every 100 bags.
9. When complete, close and seal the plastic storage drums and place in the designated area. All personnel involved in preparing the bags must have their names written on the spike bag sheet.

Spike Feeding Procedures

The procedures written below are the steps taken by personnel when feeding spikes used for incinerator testing.

Feeding Procedure for Mercury, Lead and Chlorine Spikes

1. Position the Mercury nitrate spike vials, the Lead nitrate spike bags and the Hexachloroethane near the loading point on the solid charge feed conveyor.
2. Place one spike container of each chemical into each charge. Because the mercury feed rates are dependent on the incinerator, the correct spike vial must be fed to the respective incinerator.
3. Document the waste charge number, vial number and bag numbers on the charge sheet. All personnel involved in feeding the charges must have their names written on the charge sheet.

Feeding Procedures for Chromium Spike

1. Place the feeding device and selected drums of Chromic acid near the injection point on the incinerator.
2. Activate the power panel for the feeding device and zero the electronic scales.

3. Put on the Personnel Protective Equipment recommended by the MSDS for Chromic Acid and transfer the desired amount of material to the holding tank on the feeding device.
 4. At the designated time, start the metering pumps and select pump settings that deliver the targeted feed rate.
 5. Document scale readings and time at selected intervals on the Chromic acid feed chart to verify that the desired feed rate is being achieved during the incinerator testing period. All personnel involved in feeding the Chromic acid must have their names written on the feed chart.
-

ATTACHMENTS

Wego Chemical Mineral Corp.
239 Great Neck Road
Great Neck, NY 11021
UNITED STATES
Phone: (516) 487-3510
Fax: (516) 487-3794

TECHNICAL DATA

CERTIFICATE OF ANALYSIS

Certificate Date

Product Name: LEAD NITRATE TECH - 25 KG BAGS

PAGE 1

Wego Tracking Number 00021321

CAS # 10099-74-8

File Number 56763

Synonyms

ITEMS	Specifications	TEST RESULTS	
Batch No 2013-1-17		Quantity	12,800.0000 KGS
Purity	99 % min		99.2
Water Insoluble Matter	0.02 % max		0.01
Iron	0.01 % max		0.003
Free Acid	0.10 % max		0.05
Mfg Date:	-		1/2013
Expiration Date	-		1/2014

The information set forth herein is offered as a service to our customers and is not intended to relieve a customer from its responsibility to determine the suitability of the information or of the materials described herein for purchaser's purposes, to investigate other sources of information, to comply with all laws and procedures regarding safe use of these materials and to use these materials in a safe manner. No warranty is made of the merchantability or fitness of any product, and nothing herein waives any of the Seller's conditions of sale.

Sheet No.: CHROMIC ACID Liquid (35%)
Revision: 04/21/08 WES
IMDS ID No.: 756617

Technical Information

CHROMIC ACID

Liquid (35%)

INTRODUCTION

CHROMIC ACID Liquid (35%) is a high-purity product well suited for use in chromium plating and anodizing applications. It can also be used in the manufacture of chromate conversion compounds for zinc and cadmium, bright dips for copper, brass, aluminum, and magnesium, for producing certain types of pigments, as an oxidant in organic syntheses in the pharmaceutical industry, and as a catalyst in certain petroleum refining processes.

SPECIFICATIONS

	Specification	Typical
Chromic Acid CrO ₃ -	57.3 oz/gal (430 g/l) Min.	60 oz/gal (450 g/l)
Sulfate (SO ₄) -		0.07%
Chloride (Cl) -		0.002%
Insoluble Materials -		0.002%
Sodium (Na) -		0.023%



Atotech USA Inc.
 Quality Control
 1750 Overview drive
 Rock Hill, SC 29731-2000
 QC Lab Tel: (803) 817-3575 - Fax: (803) 817-3606
 Customer Service: (800) 752-8464 (US Customers Only)

BRENNTAG MID SOUTH (FORMERLY GS)
 126 CHOUTEAU AVE
 SAINT LOUIS MO 63102

Inspection Certificate	
Date	07/26/2013
Article-No:	2200041-0055-4-000
Material:	LIQUID CHROMIC ACID (CH)
BATCH:	CH13F00382
Expiration Date :	06/21/2015
Atotech Order No:	5002139983
Delivery No:	5006218310
Cust.Mat.No:	
Cust.Order No:	440355

This is to certify that the product identified has been tested under controlled laboratory conditions and found to meet our specifications and quality assurance standards.

Inspection Date: 06/21/2013

Characteristic	Lower Limit	Upper Limit	Value	Unit	Method
Appearance			Clear liquid		
Color			Red		
Specific Gravity 20 deg C	1.285	1.315	1.300	g/ml	5360-PHY
Content: Chromic acid	419.3	471.5	443.0	g/l	8296-TIT

This is a controlled computer printout valid without a signature.

Quality Control Laboratory
 Laboratory Manager

(THIS STATEMENT PRINTS ON A COA FOR A REGULAR SHIPMENT)

IMPORTANT: All information provided is believed to be accurate and complete. The data provided is representative of the product quality on the date of analysis for the lot number indicated. This certificate of analysis may not include all of the constituents of the product. Persons using this information should make their own determination regarding its suitability for their particular application. This certificate of analysis shall not in any way limit or preclude the operation and effect of the applicable terms and conditions of sale.



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Inspection Certificate

BRENNTAG MID SOUTH (FORMERLY GS)
 126 CHOUTEAU AVE
 SAINT LOUIS MO 63102

Date: 07/26/2013
 Article-No: 2200041-0055-4-000
 Material: LIQUID CHROMIC ACID (CH)
 BATCH: CH13G00252
 Expiration Date: 07/16/2015
 Atotech Order No: 5002139983
 Delivery No: 5006218310
 Cust.Mat.No:
 Cust.Order No: 440355

This is to certify that the product identified has been tested under controlled laboratory conditions and found to meet our specifications and quality assurance standards.

Inspection Date: 07/16/2013

Characteristic	Lower Limit	Upper Limit	Value	Unit	Method
Appearance			Clear liquid		
Color			Red		
Specific Gravity 20 deg C	1.285	1.315	1.307	g/ml	5360-PHY
Content: Chromic acid	419.3	471.5	449.6	g/l	8296-TIT

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Quality Control Laboratory
 Laboratory Manager

(THIS STATEMENT PRINTS ON A COA FOR A REGULAR SHIPMENT)

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100179

BRENNTAG MID SOUTH (FORMERLY GS)
 126 CHOUTEAU AVE
 SAINT LOUIS MO 63102

Inspection Certificate

Date	07/30/2013
Article-No:	2200041-0055-4-000
Material:	LIQUID CHROMIC ACID (CH)
BATCH:	CH13G00385
Expiration Date :	07/25/2015
Atotech Order No:	5002139983
Delivery No:	5006218461
Cust.Mat.No:	
Cust.Order No:	440355

This is to certify that the product identified has been tested under controlled laboratory conditions and found to meet our specifications and quality assurance standards.

Inspection Date: 07/25/2013

Characteristic	Lower Limit	Upper Limit	Value	Unit	Method
Appearance			Clear liquid		
Color			Red		
Specific Gravity 20 deg C	1.285	1.315	1.303	g/ml	5360-PHY
Content: Chromic acid	419.3	471.5	448.2	g/l	8296-TIT

This is a controlled computer printout valid without a signature.

Quality Control Laboratory
 Laboratory Manager

(THIS STATEMENT PRINTS ON A COA FOR A REGULAR SHIPMENT)

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BRENNTAG MID SOUTH (FORMERLY GS)
 126 CHOUTEAU AVE
 SAINT LOUIS MO 63102

Inspection Certificate	
Date	Repeat printout 05/28/2013
Article-No:	2200041-0055-4-000
Material:	LIQUID CHROMIC ACID (CH)
BATCH:	CH13E00343
Expiration Date :	05/20/2015
Atotech Order No:	5002137274
Delivery No:	5006214295
Cust.Mat.No:	
Cust.Order No:	428441

This is to certify that the product identified has been tested under controlled laboratory conditions and found to meet our specifications and quality assurance standards.

Inspection Date: 05/20/2013

Characteristic	Lower Limit	Upper Limit	Value	Unit	Method
Appearance			Clear liquid		
Color			Red		
Specific Gravity 20 deg C	1.285	1.315	1.306	g/ml	5360-PHY
Content: Chromic acid	419.3	471.5	449.9	g/l	8296-TIT

This is a controlled computer printout valid without a signature.

Quality Control Laboratory
 Laboratory Manager

(THIS STATEMENT PRINTS ON A COA FOR A REGULAR SHIPMENT)

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SKYLINE CHEMICAL CORP.

P.O. Box 53663, IRVINE, CALIFORNIA 92619 (USA)

TEL: +1-800-732-5871 FAX: +1-949-653-5836 EMAIL: sales@skylinechemical.com

CERTIFICATE OF ANALYSIS

Lot No. SC/13-002

NiKkin Flux

Date FEB 5, 2013

PRODUCT : HEXACHLOROETHANE
FORM : WHITE, CRYSTALLINE POWDER
(FREE-FLOWING MATERIAL)
COLOR : SNOW-WHITE
ODOR : CAMPHOR-LIKE
(1) PURITY (% BY GLC) : 99.92%
(2) MELTING POINT : 185 °C
(3) MOISTURE (% WT.) : 0.015%
(4) ASH (% WT.) : 0.1%
(5) FREE CHLORINE : NIL
(6) WATER SOLUBLE
CHLORIDE (% NaCl) : 0.023%
(7) GRADING : -18 +150 Mesh BSS

for SKYLINE CHEMICAL CORP


(DIRECTOR)

Attn. Mr. Steve Schoeffler
RE. COA for your PO# Email 6/14/13 Dt. Jun 14, 2013
Quantity 8,800 lbs. net



Certificate of Analysis

HEXACHLOROETHANE

Lot/Batch #: SC/12-13/18
Customer PO #: 86000-5010088935
Parchem Order #: 22689

Test	Result
Form	White, crystalline powder (Free-flowing material)
Color	Snow-white
Odor	Camphor-like
Purity	99.96%
Melting Point	185.4°C
Moisture	0.01% wt.
Ash	0.09% wt.
Free Chlorine	NIL
Water Soluble Chloride (% NaCl)	0.002%
Grading	-18 +150 Mesh BSS



Approved By:

Quality Assurance
Jacob Klein



parchem - fine & specialty chemicals | 415 Huguenot Street New Rochelle, NY 10801 | Tel 914-654-6800 | www.parchem.com | dox@parchem.com

Certificate of Analysis **Alfa Aesar**

A Johnson Matthey Company

Product No.: 14497
 Product: Mercury(II) nitrate hydrate, ACS, 98.0% min
 Lot No.: A28Z031

Test	Limits	Results
Assay	98.0 % min	99.50 %
Residue after reduction	0.01 % max	0.0079 %
Chloride	0.002 % max	< 0.002 %
Sulfate	0.002 % max	< 0.002 %
Iron	0.001 % max	< 0.001 %

Appearance: Off-white, crystalline lumps
 Mercurous mercury (Hg): 0.12 %

This document has been electronically generated and does not require a signature.

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Certificate of Analysis



Nitric Acid OmniTrace® High Purity Acid

ITEM NUMBER: NX0407
LOT NUMBER: 53099

Release Date: April 09, 2013

Test	Limit	Result
Assay (HNO ₃ , w/w):	67 - 70%	69%
Color	7 APHA	< 7 APHA
Density (g/mL)	1.41 - 1.42 g/mL	1.42 g/mL

Analyte	Limit	Result
Chloride (Cl ⁻)	0.2 ppm	< 0.2 ppm
Total Phosphorus (P)	0.01 ppm	< 0.01 ppm
Total Sulfur (S)	0.3 ppm	< 0.3 ppm

Specified Trace Metals by ICP-MS (ng/g)

Analyte	Limit (max.)	Result (in ppb)	Analyte	Limit (max.)	Result (in ppb)	Analyte	Limit (max.)	Result (in ppb)
Aluminum (Al)	1	< 0.5	Holmium (Ho)	0.1	< 0.1	Ruthenium (Ru)	0.5	< 0.1
Arsenic (As)	0.5	< 0.1	Indium (In)	0.1	< 0.1	Samarium (Sm)	0.1	< 0.1
Barium (Ba)	0.1	< 0.1	Iron (Fe)	1	< 0.5	Scandium (Sc)	0.1	< 0.1
Beryllium (Be)	0.1	< 0.1	Lanthanum (La)	0.1	< 0.1	Selenium (Se)	1	< 0.1
Bismuth (Bi)	0.1	< 0.1	Lead (Pb)	0.1	< 0.1	Silver (Ag)	0.1	< 0.1
Boron (B)	1	< 0.5	Lithium (Li)	0.1	< 0.1	Sodium (Na)	1	< 0.3
Cadmium (Cd)	0.5	< 0.1	Lutetium (Lu)	0.1	< 0.1	Strontium (Sr)	0.1	< 0.1
Calcium (Ca)	1	< 0.6	Magnesium (Mg)	1	< 0.2	Tellurium (Te)	0.1	< 0.1
Cerium (Ce)	0.1	< 0.1	Manganese (Mn)	0.1	< 0.1	Terbium (Tb)	0.1	< 0.1
Cesium (Cs)	0.1	< 0.1	Mercury (Hg)	0.1	< 0.02	Thallium (Tl)	0.1	< 0.1
Chromium (Cr)	1	< 0.5	Molybdenum (Mo)	0.1	< 0.1	Thorium (Th)	0.1	< 0.1
Cobalt (Co)	0.5	< 0.1	Neodymium (Nd)	0.1	< 0.1	Thulium (Tm)	0.1	< 0.1
Copper (Cu)	0.5	< 0.2	Nickel (Ni)	0.5	< 0.5	Tin (Sn)	0.5	< 0.1
Dysprosium (Dy)	0.1	< 0.1	Niobium (Nb)	0.1	< 0.1	Titanium (Ti)	0.5	< 0.1
Erbium (Er)	0.1	< 0.1	Palladium (Pd)	0.5	< 0.1	Tungsten (W)	0.1	< 0.1
Europium (Eu)	0.1	< 0.1	Platinum (Pt)	0.5	< 0.1	Uranium (U)	0.1	< 0.1
Gadolinium (Gd)	0.1	< 0.1	Potassium (K)	1	< 0.2	Vanadium (V)	0.5	< 0.1
Gallium (Ga)	0.1	< 0.1	Praseodymium (Pr)	0.1	< 0.1	Ytterbium (Yb)	0.1	< 0.1
Germanium (Ge)	0.1	< 0.1	Rhenium (Re)	0.1	< 0.1	Yttrium (Y)	0.1	< 0.1
Gold (Au)	0.1	< 0.1	Rhodium (Rh)	0.5	< 0.1	Zinc (Zn)	0.5	< 0.2
Hafnium (Hf)	0.1	< 0.1	Rubidium (Rb)	0.1	< 0.1	Zirconium (Zr)	0.1	< 0.1

Other Trace Metals by ICP-MS (ng/g)

Tantalum (Ta)	< 0.1
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EMD Chemicals Inc.
Affiliate of Merck KGaA, Darmstadt, Germany

Gene A. Desotelle
Gene A. Desotelle
Quality Control Manager

For Technical Assistance Call: (800) 222-0342

Made in Canada

Effective Date: 02/02/2010 NForm1055(4)

Bottle-Top Dispenser

Operator Instructions

For capacities of

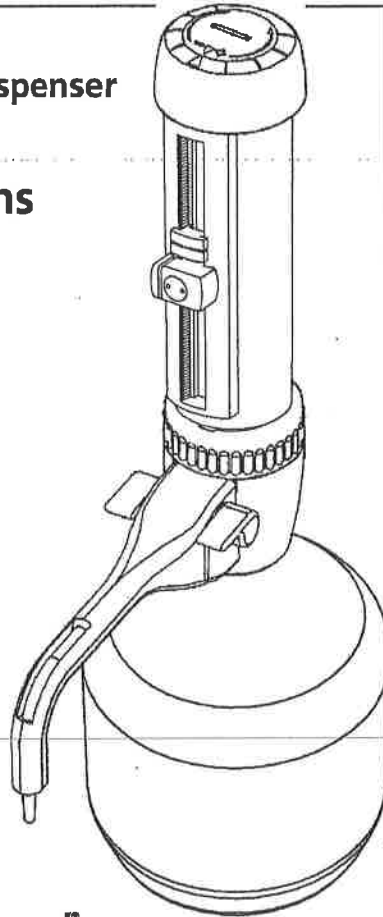
2.5ml

5ml

10ml

30ml and

50ml



Fisherbrand®

Quality Control Certificate & Instrument Warranty

GB WARRANTY

This instrument is guaranteed for 12 months. This certificate of quality control is valid for the enclosed apparatus. These test results are to ISO standard 8655 and show imprecision and inaccuracy of stated maximum nominal volume using distilled water @ 20.000 °C. .

D GARANZIA

Wir leisten 12 Monate Garantie gegen Vorlage dieses Prüfprotokolls. Dieses Prüfprotokoll wurde für das beiliegende Gerät erstellt. Dieses Testergebnis entsprechen ISO Norm 8655 und weisen eine Ungenauigkeit des angegebenen maximalen Nenninhalts bei Verwendung von destilliertem Wasser bei 20.000 °C auf.

F GARANTIE

Nous accordons une garantie de 12 mois pour tout appareil acheté en notre société. Ce certificat a été établi pour l'appareil suivant. Les résultats des essais sont conforme à la norme ISO 8655 et font ressortir une imprecision et une inexactitude du volume dans les limites de la valeur nominale maximale admissible avec de l'eau distillée à 20.000 °C.

E GARANTIA

Concedemos contra la presentación de este certificado 12 meses de garantía. Este certificado de control de calidad es válido para el aparato adjunto. Los resultados de estos ensayos conforman con la norma ISO 8655 y muestran la imprecisión e inexactitud del volumen nominal máximo declarado usando agua destilada a 20.000 °C.

Model Fisherbrand	Inspector PAULSH, J	Date 21. 02. 2013	Serial No. AF2572
-----------------------------	-------------------------------	-----------------------------	-----------------------------

1543 Columbia Ave,
Franklin TN 37064

Phone: (800) 846-9959 - (412) 257-8861

Test Volume (ml) 10 ML	Inaccuracy (A%) 0.0002 %
Coefficient of Variation (CV%) 0.0617 %	

Quality Compliance CERTIFICATE of Conformity

These products are subject to our highest standard of quality assurance. At every stage of production this manufacturing lot of items is produced in a controlled environment and is traceable. We test every lot of these products to ensure they perform to your needs.

We guarantee that these products meet our strictest requirements as applicable for precision, clarity, warp, centrifugation and are free of detectable contamination that might affect your results. Should you find these products fail to meet our published standards please contact us for a replacement.

To receive a testing certificate for a specific lot number please contact our Customer Support Department.



Analysis Certificate

This certificate of compliance is issued to confirm that this lot of products conforms to our written material specifications and has been tested and found as applicable to be:

- Free of detectable Nuclease contaminants as confirmed by a gel assay.
- Free of Human DNA to a detection level of 1 picogram of DNA.
- If this is a sterile product this lot has been tested and found to be free of Endotoxin to a detection level of 0.05EU/mL.
- Sterile studies to detect microbial contamination are completed quarterly in compliance with AAMI/ISO 11137 and these products have an SAL between 10^{-5} and 10^{-6} .
- The resins used to produce these products have been tested for heavy metals contamination using the U.S.P. (231) method and found to have results lower than 1ppm.

Testing protocols are described on the reverse
Rev. New

Testing Protocols Used in Quality Assurance

Product Sterilization

Those products designated as Sterile are irradiated by gamma radiation. The validated dosage level for these products is in a range between 12-25 kGy.

Bjburden and Radiation Validation

Bjburden and Radiation Validation studies are performed according to the ANSI/AAMI/ISO 11137 standard. This testing is performed quarterly by an independent laboratory.

Endotoxin Detection (Pyrogen)

Samples of these products are extracted in endotoxin-free water and tested for endotoxins using the kinetic turbidimetric method of the Limulus Amoebocyte Lysate (LAL) test according to the USP standard. The minimum detection level for this test is 0.05 EU/mL.

Nuclease Detection

For RNase testing, sample products are flushed in 20 μ L pools containing 1 μ g of 7.5 kb Poly(A)-tailed RNA with a buffer containing NaCl and MgCl₂. For the DNase test, product samples are flushed in 20 μ L pools containing of 1.0 μ g of 1 Hind III DNA with a buffer containing NaCl and MgCl₂. Reactions are then incubated for 1 hour at 37° C then visualized in an agarose gel. The results are then compared to negative and positive controls. The resulting reactions must show no degradation of the DNA and RNA fragments to meet our quality standard.

Rev. New

DNA Contamination

Each product sample is extracted with sterile, DNA-free water. A portion of the extract is added to a PCR reaction containing thermostable polymerase, a primer set to amplify a mammalian gene, and dNTPs. Negative control reactions and positive control reactions (containing 1 picogram of Human Genomic DNA) are also created. All reactions are thermocycled for 40 cycles, after which the results are visualized by agarose gel electrophoresis. The absence of PCR signal in the sample reactions indicates the product is free of DNA contamination.

To receive a Testing Certificate for a specific lot number, please contact our Customer Support Department at:

800.227.1466 or ++ 1.707.766.2100
or Fax us at
800.648.4859 or ++1.707.766.2199
with the lot number of your product.

Printed on Recycled Paper

The PCR process is covered by patents owned by Hoffman-La Roche Ltd.

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CI-CERT

MERCURY CONCENTRATION FOR MERCURY (II) NITRATE HYDRATE, LOT NO. A28Z031

From Certification of Analysis for Lot No. A28Z031:

Assay = 99.5 wt. % $\text{Hg}(\text{NO}_3)_2 \cdot x \text{H}_2\text{O}$ $x = 1$ or 2

Also contains 0.12 wt. % Mercury in 1+ oxidation state (Mercury (I) or Mercurous mercury)

Estimated Average Molecular Weight and Percent Mercury by Weight:

$\text{Hg}(\text{NO}_3)_2 \cdot \text{H}_2\text{O}$: $200.6 + 2\{14.01 + (3 \times 16.00)\} + 18.02 = 342.6$ amu

$\text{Hg}(\text{NO}_3)_2 \cdot 2 \text{H}_2\text{O}$ $200.6 + 2\{14.01 + (3 \times 16.00)\} + 2(18.02) = 360.7$ amu

For 50/50 ratio of monohydrate/dihydrate:

$200.6 / \{(342.6 + 360.7) / 2\} \times 100 = 57.05$ wt. % Mercury in $\text{Hg}(\text{NO}_3)_2 \cdot x \text{H}_2\text{O}$

For 99.5% assay and 0.12% Mercurous mercury of Lot No. A28Z031:

$0.995 (57.05) + 0.12 = 56.88$ wt. % Mercury

MERCURY SOLUTION FOR NO. 2 AND NO. 3 INCINERATORS

Targeted Mercury feed rates: 0.002 lb Mercury / hour
40 vials solution / hour @ 10 ml solution / vial *
56.88 wt. % Mercury in $\text{Hg}(\text{NO}_3)_2 \cdot \text{x H}_2\text{O}$

Estimated Total Solution Needed:
 $10 \text{ ml/vial} (40 \text{ vial/hr})(4 \text{ hr/test})(3 \text{ test/incin})(2 \text{ Incin}) = 9600 \text{ ml} = 9.6 \text{ liters}$
9.6 liters + safety factor = 12 liters Mercury solution

For 12 Liters of Mercury Solution:
 $0.002 \text{ lb Hg/hr} (453.6 \text{ gm/lb}) / 40 \text{ vials/hr} = 0.02268 \text{ gm Hg/vial}$
 $(0.02268 \text{ gm Hg/vial}) / (10 \text{ ml sol'n/vial}) \times 1000 \text{ ml/lit} \times 12 \text{ lit} / 0.5688 =$
47.85 gm $\text{Hg}(\text{NO}_3)_2 \cdot \text{x H}_2\text{O}$ in 12 liters solution

Amounts of Components for Preparation of Mercury Solution for No. 2 and No. 3 Incinerators:
47.85 gm $\text{Hg}(\text{NO}_3)_2 \cdot \text{x H}_2\text{O}$
10.8 liters de-ionized water
1.2 liters conc. Nitric acid

*Volumes may be modified based on concentrations in the native waste fed.

MERCURY SOLUTION FOR NO. 4 INCINERATOR

Targeted Mercury feed rates: 0.04 lb Mercury / hour
40 vials solution / hour @ 20 ml solution / vial*
56.88 wt. % Mercury in $\text{Hg}(\text{NO}_3)_2 \cdot \text{x H}_2\text{O}$

Estimated Total Solution Needed:

20 ml/vial (40 vial/hr)(4 hr/test)(3 test/Inclin) = 9600 ml = 9.6 liters

9.6 liters + safety factor = 12 liters Mercury solution

For 12 Liters of Mercury Solution:

0.04 lb Hg/hr (453.6 gm/lb) / 40 vials/hr = 0.4536 gm Hg/vial

$(0.4536 \text{ gm Hg/vial}) / (20 \text{ ml sol'n/vial}) \times 1000 \text{ ml/lit} \times 12 \text{ lit} / 0.5688 =$

478.5 gm $\text{Hg}(\text{NO}_3)_2 \cdot \text{x H}_2\text{O}$ in 12 liters solution

Amounts of Components for Preparation of Mercury Solution for No. 4 Incinerator:

478.5 gm $\text{Hg}(\text{NO}_3)_2 \cdot \text{x H}_2\text{O}$

10.8 liters de-ionized water

1.2 liters conc. Nitric acid

*Volumes may be modified based on concentrations in the native waste fed.

Standards Reagents Preparation

Name	Starting Material	Trace Number	Amount	Final-Volume	Prep-Date	Exp. Date	Analyst
1 5.0 ug/ml MX/DCB	(500 ug/ml) MX Stock Soln	2251-56-8	5 ml	500 ml	8/14/13	2/14/14	JF
2 Surrogate Standard	(500 ug/ml) DCB Stock Soln	2251-56-11	5 ml	↓	↓	↓	↓
3 in Hexane	Hexane	2184-44-10	8Q	↓	↓	↓	↓
4 1% Sodium Bicarbonate	Sodium Bicarbonate	2184-19-11	30.07g	3L	8/16/13	8/30/13	JF
5 in D H ₂ O	D. H ₂ O	—	SQ	↓	↓	↓	↓
6 Sulfide Antioxidant	Sodium Hydroxide	2184-37-1	80.07g	1L	8/16/13	N/A	JF
7 Buffer Solution	Ascorbic Acid	2184-33-4	35.04g	↓	↓	↓	↓
8 ↓	Disodium Edta	2184-18-15	67.10g	↓	↓	↓	↓
9 ↓	D. H ₂ O	—	SQ	↓	↓	↓	↓
10 Approximate	Sulfide Antioxidant	2251-67-6	250ml	500ml	8/16/13	2/16/14	JF
11 1000 ug/ml Sulfide	Saturated Sulfide	2251-37-8	1.2 ml	↓	↓	↓	↓
12 LCS Spike Solution	D H ₂ O	—	SQ	↓	↓	↓	↓
13 2.5 N Sodium Hydroxide	Sodium Hydroxide	2184-37-1	350.00 g	3.5 L	8-25-13	8-25-14	SL
14 in DiH ₂ O	DiH ₂ O	—	8Q	↓	↓	↓	↓
15 1% Sodium Bicarbonate	Sodium Bicarbonate	2184-19-11	30.00 g	3 L	8-25-13	9/8/13	SL
16 in DiH ₂ O	DiH ₂ O	—	SQ	↓	↓	↓	↓
17 Low Mercury Mact	MERCURY (II) Nitrate	2184-48-8	47.85 1.2 ml	12L	8-27-13	N/A	FHF
18 Testing Solution	Nitric Acid Trace	2184-47-17	1.2L	↓	↓	↓	↓
19 2268 mg/kg Hg	Di H ₂ O	—	SQ	↓	↓	↓	↓
20 High Mercury Mact	MERCURY (II) Nitrate	2184-48-8 / 2184-48-10	478.50	12L	↓	↓	↓
21 Testing Solution	Nitric Acid trace	2184-47-17	1.2L	↓	↓	↓	↓
22 22680.0 mg/kg	Di H ₂ O	—	SQ	↓	↓	↓	↓
23 Btullb LCS/Spike	2-chlorobenzothiazole	2184-40-16	25.0025g	100ml 500ml	9/3/13	3/3/14	JF
24 Solution in Butyl Acetate	1-Bromo-4-Fluorobenzene	2184-8-19	23.8189g	↓	↓	↓	↓
25 ↓	1-Bromo-4-Fluorobenzene	2184-21-7	1.1759 g	↓	↓	↓	↓
26 ↓	Butyl Acetate	2184-43-30	SQ	↓	↓	↓	↓
27 1% Sodium Bicarbonate	Sodium Bicarbonate	2184-19-11	30.0240g	3L	9/8/13	9/22/13	JF
28 in D H ₂ O	D. H ₂ O	—	SQ	↓	↓	↓	↓
29							
30							
<p>Lines # 29 + 30 NOT USED mo 9/10/13</p>							
Reviewed By:				Date: 9/15/13			

Mercury
By Mercury Analyzer

BOOK NO. 2346

Unless otherwise noted, sample diluted to 50mL

DMA #3

Run Date	Prep Date(m/d) & Batch#	Sample ID	Receiver # Profile#	Digested Sample wt(g)	Instrument Test Wt.(g)	Instrument Reading(ng)	Sample Result mg/kg	A
8/29/13	8/29/13 B1 -5	361633 ✓	43-2297	0.508	0.250	0.083/0.097	<0.04(0.038)	08/14
		0.1 ng std.	-	-	0.010	0.084	-16%	
		0.5 ng std.	-	-	0.050	0.48	-4%	
		5 ng std.	-	-	0.050	5.0	20%	
	8/29/13 B1 -5	360735 ✓	429761	0.503	0.250	0.01	<0.04	
	-6	360156 ✓	42-9744	0.501	0.250	0.003	<0.04	
	-8	360572 ✓	43-0483	0.510	0.250	0.03	<0.04	
	-9	360205 ✓	42-9863	0.507	0.250	0.04	<0.04	
	-10	360111 ✓	42-9721	0.503	0.250	0.07	<0.04	
	-16	360212 ✓	42-9904	0.501	0.250	0.007	<0.04	
	-17	360210 ✓	42-9563	0.501	0.250	1.25/1.21	0.50	
	-18	360148 ✓	42-9917	0.503	0.250	0.01	<0.04	
	-19	360343 ✓	42-8802	0.502	0.250	0.01	<0.04	
	-20	360146 ✓	42-9967	0.506	0.250	0.01	<0.04	
		0.1 ng std.	-	-	0.010	0.095	-5%	
		0.5 ng std.	-	-	0.050	0.46	-8%	
		5 ng std.	-	-	0.050	4.9	-2%	
8/30/13		0.1 ng std.	-	-	0.010	0.088	-12%	
		0.5 ng std.	-	-	0.050	0.47	-6%	
		5 ng std.	-	-	0.050	5.1	+2%	
		10 ng ICV 8/30/13	-	-	0.010	9.8	POB 8/30/13 4 -2%	
		2251-67-20 (high)	-	-	0.0106	9.42	23550.0 mg/L	
		2251-67-17 (low)	-	-	0.0250	5.97	2388.0 mg/L	
		5 ng std.	-	-	0.050	5.17	+3.4%	
	8/29/13 B1 -14	360209 ✓	42-4902	0.508	0.250	0.04	<0.04	
	-15	360110 ✓	42-9723	0.505	0.250	0.03	<0.04	
	-16	360119 ✓	42-9956	0.503	0.250	0.05	<0.04	
	-17	360114 ✓	42-9978	0.510	0.250	0.04	<0.04	
	-18	360117 ✓	42-9996	0.503	0.250	0.04	<0.04	
	-19	360120 ✓	42-9976	0.505	0.250	0.02	<0.04	

Reviewed By:

K Date: 9/6/13

B-27

Acceptable limits for standards:

Lowest standard on curve: +30/-20

All other concentrations: +/-10%

LCS Limits: 17.8 - 27.0 mg/kg (Mean 22.4)

Current reagent trace numbers are listed in front pages of log

Theoretical Spike: 0.1 mL x 100/sample wt.

Sample # : _____	Lines: _____
Theor Spike: _____	
Mean: _____	
RPD: _____	
% Recovery: _____	

Sample # : _____	Lines: _____
Theor Spike: _____	
Mean: _____	
RPD: _____	
% Recovery: _____	

→ ① lines 22-23, 2251-67-20 and 2251-67-17

MACT non-routine samples by

2251-67-20 was prepared after a 25,000 dilution
and 2251-67-17 was prepared by a 10,000 dilution.

sample results were calculated based on these dilutions

$$\frac{9.42 \text{ ug delivered}}{0.010 \text{ mL}} \times 25,000 \times \frac{1 \text{ unit/mL}}{1000} = 23550.0 \text{ mg/kg} \quad \text{KS 9/14/13}$$

$$\frac{5.97 \text{ ug delivered}}{0.0250 \text{ mL}} \times 10,000 \times \frac{1 \text{ unit/mL}}{1000} = 2388.0 \text{ mg/kg} \quad \text{KS 9/14/13}$$

KS / DB 8/30/13

Run Date
8/30/13
DMA-3 DB/KS

Reprinted
9/16/13
[Signature]

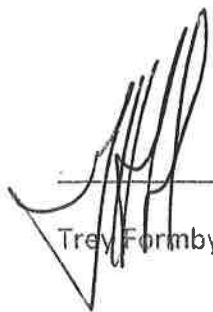
Sample listing "083013-3.d80"
Page 1 of 1

Created by "Administrator"
8/30/2013 15:18:16

Pos Nr.	Samplename Remark	Amount Date	State Date	Height	Hg [ng]	Concentr. [mg/kg]	Σ	Cal- Factor
1 (1)	Inst.	1.0000 g 8/30/13 07:11am	✓ 8/30/13 07:23am	0.0027	0.0165	0.0000		1.0000
2 (2)	Inst.	1.0000 g 8/30/13 07:11am	✓ 8/30/13 07:29am	0.0007	0.0007	0.0000		1.0000
25 (3)	0.1 ng std.	0.0100 g 8/30/13 07:45am	✓ 8/30/13 07:46am	0.0117	0.0878	0.0088		1.0000
26 (4)	0.5 ng std.	0.0500 g 8/30/13 07:46am	✓ 8/30/13 07:54am	0.0599	0.4740	0.0095		1.0000
27 (5)	5 ng std.	0.0500 g 8/30/13 07:46am	✓ 8/30/13 08:02am	0.2606	5.1009	0.1020		1.0000
28 (6)	10 ng icv 8/30/13	0.0100 g 8/30/13 08:32am	✓ 8/30/13 08:32am	0.4692	9.8071	0.9807		1.0000
25 (7)	2251-67-20 High STD	0.0100 g 8/30/13 08:43am	✓ 8/30/13 09:46am	0.4533	9.4223	0.9422		1.0000
26 (8)	2251-67-17 Low STD	0.0250 g 8/30/13 08:56am	✓ 8/30/13 09:57am	0.3016	5.9726	0.2389		1.0000
27 (9)	5 ng std.	0.0500 g 8/30/13 10:05am	✓ 8/30/13 10:06am	0.2638	5.1681	0.1034		1.0000
14 (10)	360208 8/28-b1.	0.2500 g 8/30/13 10:15am	✓ 8/30/13 10:16am	0.0059	0.0418	0.0002		1.0000
15 (11)	360110 8/28-b1.	0.2500 g 8/30/13 10:18am	✓ 8/30/13 10:23am	0.0050	0.0347	0.0001		1.0000
16 (12)	360118 8/28-b1.	0.2500 g 8/30/13 10:19am	✓ 8/30/13 10:31am	0.0064	0.0458	0.0002		1.0000
17 (13)	360114 8/28-b1.	0.2500 g 8/30/13 10:19am	✓ 8/30/13 10:36am	0.0041	0.0276	0.0001		1.0000
18 (14)	360117 8/28-b1.	0.2500 g 8/30/13 10:36am	✓ 8/30/13 10:48am	0.0055	0.0386	0.0002		1.0000
19 (15)	360120 8/28-b1.	0.2500 g 8/30/13 10:37am	✓ 8/30/13 10:56am	0.0028	0.0173	0.0001		1.0000
20 (16)	360118 8/28-b1.	0.2500 g 8/30/13 10:38am	✓ 8/30/13 11:04am	0.0077	0.0561	0.0002		1.0000
21 (17)	360115 8/28-b1.	0.2500 g 8/30/13 10:39am	✓ 8/30/13 11:12am	0.0040	0.0268	0.0001		1.0000
25 (18)	0.1 ng std.	0.0100 g 8/30/13 11:22am	✓ 8/30/13 11:26am	0.0105	0.0783	0.0078		1.0000
26 (19)	0.5 ng std.	0.0500 g 8/30/13 11:26am	✓ 8/30/13 11:31am	0.0566	0.4473	0.0089		1.0000
27 (20)	5 ng std.	0.0500 g 8/30/13 11:26am	✓ 8/30/13 11:40am	0.2510	4.9001	0.0980		1.0000
25 (21)	0.1 ng std.	0.0100 g 8/30/13 11:53am	✓ 8/30/13 11:54am	0.0144	0.1092	0.0109		1.0000
26 (22)	0.1 ng std.	0.0100 g 8/30/13 11:53am	✓ 8/30/13 11:59am	0.0108	0.0806	0.0081		1.0000
27 (23)	0.5 ng std.	0.0500 g 8/30/13 11:53am	✓ 8/30/13 12:07am	0.0576	0.4554	0.0091		1.0000
27 (24)	0.5 ng std.	0.0500 g 8/30/13 12:25am	✓ 8/30/13 12:26am	0.0575	0.4546	0.0091		1.0000
28 (25)	Inst.	1.0000 g 8/30/13 12:33am	✓ 8/30/13 12:33am	0.0011	0.0038	0.0000		1.0000
4 (26)	360237 8/29-b1.	0.0250 g 8/30/13 12:46am	✓ 8/30/13 12:50am	0.4629	9.6555	0.3862		1.0000
8 (27)	360516 8/29-b1.	0.2500 g 8/30/13 12:52am	✓ 8/30/13 01:03pm	0.0047	0.0323	0.0001		1.0000
9 (28)	359089 8/29-b1.	0.2500 g 8/30/13 12:53am	✓ 8/30/13 01:12pm	0.0249	0.1928	0.0008		1.0000

Documentation of steps for dispensing Mercury (Hg) solution to Vials for CPT

	Low Conc.	High Conc.
Inspect the selected bucket of Hg solution to verify integrity.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Break seal on selected bucket of Hg solution	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Inspect contents of bucket to verify Hg nitrate remains in solution	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Prepare 4 liter glass jug with one rinse DI water, 2 rinses Hg solution	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Prepare stirring rod with rinse of Hg solution solution	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Prepare funnel and 600 ml beaker with rinse of Hg solution	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Stir Hg solution with stirring rod	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Hg solution transferred from bucket to jug via beaker and funnel	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Prepare re-pipetter with rinse of Hg solution	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Prepare 10 ml Class A volumetric flask with rinse of Hg solution	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Re-pipetter attached to jug and calibrated with 10 ml Class A flask	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>



Trey Formby, Lab Manager

10-21-13

Date

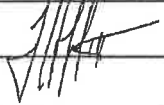
CHAIN OF CUSTODY RECORD

Company: VEOLIA ENVIRONMENTAL SERVICES Telephone: (618) 271-2804
 Address: 7 MOBILE AVE SAUGET ILLINOIS 62201
 (STREET) (CITY) (STATE) (ZIP)
 Collector: _____ Sample Date / Time: _____

SAMPLE #	# CONTAINERS x SIZE	SAMPLE DESCRIPTION / SOURCE	ANALYSIS REQUIRED
2251-67-20	1 X 50ml	Hg TEST Solution High Conc TWI - VES	Total Hg
2251-67-17	1 X 50ml	Hg TEST Solution Low Conc L	L

Samples Submitted To: _____
 CSR is IN House Testing Bill my PO for Results
 Questions call Trey Formby
 618-271-2804

CHAIN OF POSSESSION

Relinquished By: (1) (Signature)	Date (2):	Received By: (Signature)	Date: (2)
	8-27-13	Daniel C. Bork	8/30/13

NOTE: (1) First "Relinquished By" signature shall be that of the sampler.
 (2) Apparent gaps or breaks in the inclusive dates in the "Chain of Possession" section are covered by site receiving shipping logs.

TWI NON-ROUTINE SAMPLE REPORT -MERCURY BY DMA

RECEIVER: 2251-69-17

PROFILE: Jeff M.

GENERATOR: ✓ site generated.

SAMPLE #	DRUM #	Hg (mg/kg) ^{mg/L}	DATE	ANALYST
2268 ^{Loken to 1/20/14} mg/kg Hg reagent # 2251-69-17	—	2236.0	10/25/13	DB/FHE

Reviewed By: 

Date: 10-29-13

THIS SAMPLE WAS COLLECTED ACCORDING TO APPLICABLE SW-846 PROCEDURES
 This report had been prepared for the exclusive use and benefit of Veolia Environmental Services.
 No representation concerning sample validity or analytical accuracy of completeness is hereby
 made to any other person receiving this report.

Standards Reagents Preparation

Name	Starting Material	Trace Number	Amount	Final Volume	Prep Date	Exp. Date	Analyst
1 3% Sodium Bicarbonate	Sodium Bicarbonate	2184-19-14	30.00g	3L	10/16/13	11/14/13	mf
2 IN DI H2O	DI H2O	---	SQ	↓	10/16/13	11/16/13	m
3 BTU/16 LCS Spike	2-Chlorobenzothiazole	2184-40-17	25.008	100mL	10/17/13	4/17/14	JS/FNF
4 Solution IN	1-Bromo-4-Fluorobenzene	2184-21-7	25.0063	↓	↓	↓	↓
5 Butyl Acetate	n-Butyl Acetate	2184-43-30	SQ	↓	↓	↓	↓
6 0.5 ug/ml Ar 1242 w/	50 ug/ml Ar 1242	2251-5648	1ml	100ml	10/17/13	10/17/16	SJ
7 0.05 ug/ml TMX/DCB in	5 ug/ml TMX/DCB	2251-67-1	1ml	↓	↓	↓	↓
8 Hexane	Hexane	2184-44-17	SQ	↓	↓	↓	↓
9 0.5 ug/ml Ar 1254 w/	50 ug/ml Ar 1254	2251-5620	1ml	100ml	10/17/13	10/17/16	SJ
10 0.05 ug/ml TMX/DCB in	5 ug/ml TMX/DCB	2251-67-1	1ml	↓	↓	↓	↓
11 Hexane	Hexane	2251-44-17	SQ	↓	↓	↓	↓
12 0.085M NaHCO3	NaHCO3	2184-19-16	14.2805g	2L	10/22/13	11/21/13	JF
13 0.090M Na2CO3	Na2CO3	2184-23-19	19.0836g	↓	↓	↓	↓
14 in DI H2O	DI H2O	---	SQ	↓	↓	↓	↓
15 1:1 HCl in DI H2O	Concentrate HCl	2184-47-26	1L	2L	10/22/13	10/22/15	JF/LT
16 ↓	DI H2O	---	1L	↓	↓	↓	↓
17 Low Mercury Stock	Mercury II Nitrate	2184-48-8	11.9598g	3L	10-24-13	NA	FNF
18 TEST Solution	Nitric Acid Trace	2184-48-18	300ml	FNF 10/24/13 300	10-24-13	↓	↓
19 2268 mg / kg	DI H2O	---	SQ	↓	10-24-13	↓	↓
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

Reviewed By:

Date:

Mercury
By Mercury Analyzer
DMA #3

BOOK NO. 2352

Unless otherwise noted, sample has been microwave digested.

Run Date	Prep Date(m/d) & Batch#	Sample ID	Receiver # Profile#	Digested Sample wt(g)	(mL) Dil	Instrument Test Wt(g)	Instrument Reading(ng)	Sample Result mg/kg	A
10/24/13	-	0.5 std	2282-49-1	-	-	0.05	0.49	-2%	DB/FHF/SL
		5.0 std	2282-46-13	-	-	0.05	5.2	+4%	
10/24/13	5E102413 10/24/13	362794	43-3662	0.500	50	0.25	0.58656	0.23	
		362715	43-3342	0.501	50	0.25	0.01	<0.04	
		361415	43-0463	0.502	50	0.25	0.00	<0.04	
		362614	43-1983	0.511	50	0.25	0.01	<0.04	
		362277	43-1963	0.504	50	0.25	0.02	<0.04	
		362223	43-2705	0.509	50	0.25	0.01	<0.04	
		362695	43-3522	0.510	50	0.25	0.002	<0.04	
		362840	43-3200	0.506	50	0.25	0.02	<0.04	
		361462	43-1165	0.500	50	0.25	0.01	<0.04	
		362836	43-2338	0.508	50	0.25	0.003	<0.04	
		362828	43-2411	0.502	50	0.25	0.01	<0.04	
		362839	43-3206	0.502	50	0.25	0.02	<0.04	
		0.1 ng	228249-1	-	-	0.01	0.088	-12%	
		0.5 ng		-	-	0.05	0.50	+20%	
		5 ng	2282-46-13	-	-	0.05	5.1	+2%	
10/25/13	-	10 ng std	2282-46-13	-	-	0.100	10.1	+1%	DB/AF
	10/24/13 by FHF	2268 mg/kg HA	2251-69-17	0.02 mL (100% + 2) diluted	200	0.025	5.59	2236.0 mg/L	
		10 ng std	2282-46-13	-	-	0.100	10.37	+3.7%	
		0.1 ng std	2282-49-1	-	-	0.01	0.11	+10%	
		0.5 ng std		-	-	0.05	0.49	-2%	
		5 ng std	2282-46-13	-	-	0.05	4.7	-6%	
		10 ng ICV 10/25/13	-	-	-	0.01	10.1	+1%	
	10/23/13	362926	43-3525	0.528	50	0.25	0.01	<0.04	
		363343	43-4414	0.501	50	0.25	0.03	<0.04	
		0.1 ng std	2282-49-1	-	-	0.01	0.136	+36% out. see spec for 10/25/13	
		0.5 ng std		-	-	0.05	0.51	+2%	
		5 ng std	2282-46-13	-	-	0.05	5.0	+0%	
		0.1 ng std	2282-49-1	-	-	0.01	0.091	-9% / +2% ok. see spec for 10/25/13	

Reviewed By:

Date: 10/27/13

LOS 2352 pg 9 notes pg ks

Acceptable limits for standards:

Lowest standard on curve: +30/-20

All other concentrations: +/-10%

LCS Limits: 21.6-28.2mg/kg (Mean 24.9)

Theoretical Spike: 0.1mL x 100/sample wt.

Sample # : _____	Lines: _____
Theor Spike: _____	
Mean: _____	
RPD: _____	
% Recovery: _____	

Sample # : _____	Lines: _____
Theor Spike: _____	
Mean: _____	
RPD: _____	
% Recovery: _____	

① ks 11/7/13 line 3 362744 433662 analyzed again on pg 15 line 2 an no Hg found, will be analyzed a third time.

ks/DB on 11/12/13. Analyzed again on 11/12 ^{see LOS pg line} 2350-44-17 and No Hg found. All results reported to CN

Note made on Line 19
② ks/DB on 1/10/14 20 uL diluted to 200ml in 200 ml flask = 10,000 dil

$$\frac{5.59}{0.025} \times 1000 = 2236 \text{ mg/L}$$

Sample listing "102513-3.d80"

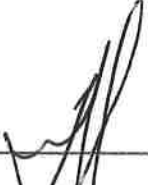
Created by "Administrator"
10/25/2013 09:09:36

Page 1 of 1

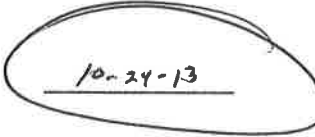
Pos Nr.	Samplename Remark	Amount Date	State Date	Height	Hg [ng]	Concentr. [mg/kg]	Σ	Cal- Factor
1 (1)	boat 1	1.0000 g 10/25/13 07:46am	✓ 10/25/13 07:46am	0.0047	0.0245	0.0000		1.0000
2 (2)	boat 2	1.0000 g 10/25/13 07:46am	✓ 10/25/13 07:52am	0.0022	0.0061	0.0000		1.0000
3 (3)	boat 3	1.0000 g 10/25/13 07:46am	✓ 10/25/13 08:00am	0.0030	0.0120	0.0000		1.0000
1 (4)	boat 4	1.0000 g 10/25/13 08:28am	✓ 10/25/13 08:29am	0.0140	0.0929	0.0001		1.0000
2 (5)	boat 5	1.0000 g 10/25/13 08:28am	✓ 10/25/13 08:34am	0.0185	0.1258	0.0001		1.0000
3 (6)	boat 6	1.0000 g 10/25/13 08:28am	✓ 10/25/13 08:42am	0.0472	0.3340	0.0003		1.0000
1 (7)	10 ng std.	0.1000 g 10/25/13 08:55am	✓ 10/25/13 08:56am	0.5014	10.1006	0.1010		1.0000
2 (8)	MACT 2268 mg/kg Hg 10,100	0.0250 g 10/25/13 08:55am	✓ 10/25/13 09:01am	0.2964	5.5881	0.2235		1.0000
3 (9)	10 ng std.	0.1000 g 10/25/13 08:55am	✓ 10/25/13 09:09am	0.5126	10.3681	0.1037		1.0000

Documentation of steps for dispensing Mercury (Hg) solution to Vials for CPT

	Low Conc.	High Conc.
Inspect the selected bucket of Hg solution to verify integrity.	<input checked="" type="checkbox"/>	
Break seal on selected bucket of Hg solution	NA	
Inspect contents of bucket to verify Hg nitrate remains in solution	<input checked="" type="checkbox"/>	
Prepare 4 liter glass jug with one rinse DI water, 2 rinses Hg solution	<input checked="" type="checkbox"/>	
Prepare stirring rod with rinse of Hg solution solution	<input checked="" type="checkbox"/>	
Prepare funnel and 600 ml beaker with rinse of Hg solution	<input checked="" type="checkbox"/>	
Stir Hg solution with stirring rod	<input checked="" type="checkbox"/>	
Hg solution transferred from bucket to jug via beaker and funnel	<input checked="" type="checkbox"/>	
Prepare re-pipetter with rinse of Hg solution	<input checked="" type="checkbox"/>	
Prepare 10 ml Class A volumetric flask with rinse of Hg solution	<input checked="" type="checkbox"/>	
Re-pipetter attached to jug and calibrated with 10 ml Class A flask	<input checked="" type="checkbox"/>	



 Trey Formby, Lab Manager



 Date

CHAIN OF CUSTODY RECORD

Company: VEOLIA ENVIRONMENTAL SERVICES Telephone: (618) 271-2804

Address: 7 MOBILE AVE SAUGET ILLINOIS 62201
 (STREET) (CITY) (STATE) (ZIP)

Collector:  Sample Date / Time: 10/25/13 9:00 AM

SAMPLE #	# CONTAINERS x SIZE	SAMPLE DESCRIPTION / SOURCE	ANALYSIS REQUIRED
225169-17	1 x 50ml	Hg Test Solution TWI Ves	Total Hg


Samples Submitted To:

CSR is *IN House Testing* Bill my PO for Results

Questions call Trey Formby

618-271-2804

CHAIN OF POSSESSION

Relinquished By: (1) (Signature)	Date (2):	Received By: (Signature)	Date: (2)
	10/25/13	Daniel C. [Signature]	10/25/13

NOTE:

- (1) First "Relinquished By" signature shall be that of the sampler.
- (2) Apparent gaps or breaks in the inclusive dates in the "Chain of Possession" section are covered by site receiving shipping logs.

Lead Nitrate Spike Preparation Sheets

Crew: Tony Click Don SchammelDate: 9-1-13Scale Zeroed: yes

BAG #	Pb(NO3)2 (lb)	BAG #	Pb(NO3)2 (lb)	BAG #	Pb(NO3)2 (lb)	BAG #	Pb(NO3)2 (lb)	BAG #	Pb(NO3)2 (lb)
1	2.6	26	2.6	51	2.4	76	2.4	101	2.4
2	2.6	27	2.6	52	2.4	77	2.6	102	2.6
3	2.6	28	2.6	53	2.4	78	2.4	103	2.4
4	2.6	29	2.6	54	2.4	79	2.4	104	2.6
5	2.6	30	2.6	55	2.4	80	2.4	105	2.6
6	2.6	31	2.6	56	2.4	81	2.4	106	2.6
7	2.6	32	2.6	57	2.4	82	2.4	107	2.4
8	2.6	33	2.4	58	2.4	83	2.6	108	2.4
9	2.6	34	2.6	59	2.4	84	2.4	109	2.4
10	2.6	35	2.6	60	2.4	85	2.6	110	2.6
11	2.6	36	2.6	61	2.4	86	2.4	111	2.6
12	2.6	37	2.6	62	2.4	87	2.6	112	2.6
13	2.6	38	2.6	63	2.4	88	2.4	113	2.6
14	2.6	39	2.6	64	2.4	89	2.6	114	2.6
15	2.6	40	2.6	65	2.6	90	2.6	115	2.6
16	2.6	41	2.4	66	2.4	91	2.6	116	2.6
17	2.6	42	2.6	67	2.6	92	2.6	117	2.4
18	2.6	43	2.4	68	2.6	93	2.4	118	2.4
19	2.6	44	2.6	69	2.4	94	2.6	119	2.6
20	2.6	45	2.4	70	2.4	95	2.4	120	2.4
21	2.6	46	2.6	71	2.6	96	2.6	121	2.6
22	2.6	47	2.6	72	2.4	97	2.6	122	2.6
23	2.6	48	2.6	73	2.6	98	2.6	123	2.6
24	2.6	49	2.4	74	2.6	99	2.4	124	2.6
25	2.6	50	2.6	75	2.6	100	2.6	125	2.6

Crew: Tony Clark Don Schmitt Date: 9-1-13 Scale Zeroed: yes

BAG #	Pb(NO3)2 (lb)	BAG #	Pb(NO3)2 (lb)	BAG #	Pb(NO3)2 (lb)	BAG #	Pb(NO3)2 (lb)	BAG #	Pb(NO3)2 (lb)
126	2.6	151	2.6	176	2.6	201	2.6	226	2.6
127	2.6	152	2.6	177	2.6	202	2.6	227	2.6
128	2.6	153	2.6	178	2.6	203	2.6	228	2.6
129	2.6	154	2.6	179	2.6	204	2.6	229	2.6
130	2.6	155	2.6	180	2.6	205	2.6	230	2.6
131	2.6	156	2.6	181	2.6	206	2.6	231	2.6
132	2.6	157	2.6	182	2.6	207	2.6	232	2.6
133	2.6	158	2.6	183	2.6	208	2.6	233	2.6
134	2.6	159	2.6	184	2.6	209	2.6	234	2.6
135	2.6	160	2.6	185	2.6	210	2.6	235	2.6
136	2.6	161	2.6	186	2.6	211	2.6	236	2.6
137	2.6	162	2.6	187	2.6	212	2.6	237	2.6
138	2.6	163	2.6	188	2.6	213	2.6	238	2.6
139	2.6	164	2.6	189	2.6	214	2.6	239	2.6
140	2.6	165	2.6	190	2.6	215	2.6	240	2.6
141	2.6	166	2.6	191	2.6	216	2.6	241	2.6
142	2.6	167	2.6	192	2.6	217	2.6	242	2.6
143	2.6	168	2.6	193	2.6	218	2.6	243	2.6
144	2.6	169	2.6	194	2.6	219	2.6	244	2.6
145	2.6	170	2.6	195	2.6	220	2.6	245	2.6
146	2.6	171	2.6	196	2.6	221	2.6	246	2.6
147	2.6	172	2.6	197	2.6	222	2.6	247	2.6
148	2.6	173	2.6	198	2.6	223	2.6	248	2.6
149	2.6	174	2.6	199	2.6	224	2.6	249	2.6
150	2.6	175	2.6	200	2.6	225	2.6	250	2.6

Crew: Tony Chick Don Schaevel Date: 9-1-13 Scale Zeroed: yes

BAG #	Pb(NO3)2 (lb)	BAG #	Pb(NO3)2 (lb)	BAG #	Pb(NO3)2 (lb)	BAG #	Pb(NO3)2 (lb)	BAG #	Pb(NO3)2 (lb)
251	2.6	276	2.6	301	2.6	326	2.6	351	2.6
252	2.6	277	2.6	302	2.6	327	2.6	352	2.6
253	2.6	278	2.6	303	2.6	328	2.6	353	2.6
254	2.6	279	2.6	304	2.6	329	2.6	354	2.6
255	2.6	280	2.6	305	2.6	330	2.6	355	2.6
256	2.6	281	2.6	306	2.6	331	2.6	356	2.6
257	2.6	282	2.6	307	2.6	332	2.6	357	2.6
258	2.6	283	2.6	308	2.6	333	2.6	358	2.6
259	2.6	284	2.6	309	2.6	334	2.6	359	2.6
260	2.6	285	2.6	310	2.6	335	2.6	360	2.6
261	2.6	286	2.6	311	2.6	336	2.6	361	2.6
262	2.6	287	2.6	312	2.6	337	2.6	362	2.6
263	2.6	288	2.6	313	2.6	338	2.6	363	2.6
264	2.6	289	2.6	314	2.6	339	2.6	364	2.6
265	2.6	290	2.6	315	2.6	340	2.6	365	2.6
266	2.6	291	2.6	316	2.6	341	2.6	366	2.6
267	2.6	292	2.6	317	2.6	342	2.6	367	2.6
268	2.6	293	2.6	318	2.6	343	2.6	368	2.6
269	2.6	294	2.6	319	2.6	344	2.6	369	2.6
270	2.6	295	2.6	320	2.6	345	2.6	370	2.6
271	2.6	296	2.6	321	2.6	346	2.6	371	2.6
272	2.6	297	2.6	322	2.6	347	2.6	372	2.6
273	2.6	298	2.6	323	2.6	348	2.6	373	2.6
274	2.6	299	2.6	324	2.6	349	2.6	374	2.6
275	2.6	300	2.6	325	2.6	350	2.6	375	2.6

Crew: Tony Click Don Schauer Date: 9-1-13 Scale Zeroed: yes

BAG #	Pb(NO3)2 (lb)	BAG #	Pb(NO3)2 (lb)	BAG #	Pb(NO3)2 (lb)	BAG #	Pb(NO3)2 (lb)	BAG #	Pb(NO3)2 (lb)
376	2.4	401	2.4	426	2.6	451	2.6	476	2.6
377		402	2.4	427	2.4	452	2.6	477	2.6
378		403	2.4	428	2.4	453	2.6	478	2.6
379		404	2.4	429	2.6	454	2.6	479	2.6
380		405	2.6	430	2.6	455	2.6	480	2.6
381		406	2.4	431	2.4	456	2.6	481	2.6
382		407	2.4	432	2.4	457	2.6	482	2.6
383		408	2.4	433	2.4	458	2.6	483	2.6
384		409	2.4	434	2.6	459	2.6	484	2.6
385		410	2.4	435	2.6	460	2.6	485	2.6
386		411	2.4	436	2.6	461	2.6	486	2.6
387		412	2.4	437	2.4	462	2.6	487	2.6
388		413	2.4	438	2.6	463	2.6	488	2.6
389		414	2.4	439	2.6	464	2.6	489	2.6
390		415	2.6	440	2.6	465	2.4	490	2.6
391		416	2.6	441	2.6	466	2.6	491	2.6
392		417	2.6	442	2.6	467	2.6	492	2.6
393		418	2.6	443	2.6	468	2.6	493	2.6
394		419	2.6	444	2.6	469	2.6	494	2.6
395		420	2.6	445	2.6	470	2.6	495	2.6
396		421	2.6	446	2.6	471	2.6	496	2.6
397		422	2.6	447	2.6	472	2.6	497	2.6
398		423	2.6	448	2.6	473	2.6	498	2.6
399		424	2.6	449	2.6	474	2.6	499	2.6
400		425	2.4	450	2.6	475	2.6	500	2.6

Crew: Tony Click Don Schanv Date: 9-1-13 Scale Zeroed: yes

BAG #	Pb(NO ₃) ₂ (lb)	BAG #	Pb(NO ₃) ₂ (lb)	BAG #	Pb(NO ₃) ₂ (lb)	BAG #	Pb(NO ₃) ₂ (lb)	BAG #	Pb(NO ₃) ₂ (lb)
501	2.4	526	2.6	551	2.6	576	2.6	601	2.6
502	2.4	527	2.6	552	2.6	577	2.6	602	2.6
503	2.6	528	2.6	553	2.6	578	2.6	603	2.6
504	2.6	529	2.6	554	2.6	579	2.6	604	2.6
505	2.6	530	2.6	555	2.6	580	2.6	605	2.6
506	2.6	531	2.6	556	2.6	581	2.6	606	2.6
507	2.6	532	2.6	557	2.6	582	2.6	607	2.6
508	2.6	533	2.6	558	2.6	583	2.6	608	2.6
509	2.6	534	2.6	559	2.6	584	2.6	609	2.6
510	2.6	535	2.6	560	2.6	585	2.6	610	2.6
511	2.6	536	2.6	561	2.6	586	2.6	611	2.6
512	2.6	537	2.6	562	2.6	587	2.6	612	2.6
513	2.6	538	2.6	563	2.6	588	2.6	613	2.6
514	2.6	539	2.6	564	2.6	589	2.6	614	2.6
515	2.6	540	2.6	565	2.6	590	2.6	615	2.6
516	2.6	541	2.6	566	2.6	591	2.6	616	2.6
517	2.6	542	2.6	567	2.6	592	2.6	617	2.6
518	2.6	543	2.6	568	2.6	593	2.6	618	2.6
519	2.6	544	2.6	569	2.6	594	2.6	619	2.6
520	2.6	545	2.6	570	2.6	595	2.6	620	2.6
521	2.6	546	2.6	571	2.6	596	2.6	621	2.6
522	2.6	547	2.6	572	2.6	597	2.6	622	2.6
523	2.6	548	2.6	573	2.6	598	2.6	623	2.6
524	2.6	549	2.6	574	2.6	599	2.6	624	2.6
525	2.6	550	2.6	575	2.6	600	2.6	625	2.6

Crew: Tony Chick Don Schauer Date: 9-1-13 Scale Zeroed: yes

BAG #	Pb(NO3)2 (lb)	BAG #	Pb(NO3)2 (lb)	BAG #	Pb(NO3)2 (lb)	BAG #	Pb(NO3)2 (lb)	BAG #	Pb(NO3)2 (lb)
626	2.6	651	2.6	676	2.6	701	2.6	726	2.6
627	2.6	652	2.6	677	2.6	702	2.6	727	2.6
628	2.6	653	2.6	678	2.6	703	2.6	728	2.6
629	2.6	654	2.6	679	2.6	704	2.6	729	2.6
630	2.6	655	2.6	680	2.6	705	2.6	730	2.6
631	2.6	656	2.6	681	2.6	706	2.6	731	2.6
632	2.6	657	2.6	682	2.6	707	2.6	732	2.6
633	2.6	658	2.6	683	2.6	708	2.6	733	2.6
634	2.6	659	2.6	684	2.6	709	2.6	734	2.6
635	2.6	660	2.6	685	2.6	710	2.6	735	2.6
636	2.6	661	2.6	686	2.6	711	2.6	736	2.6
637	2.6	662	2.6	687	2.6	712	2.6	737	2.6
638	2.6	663	2.6	688	2.6	713	2.6	738	2.6
639	2.6	664	2.6	689	2.6	714	2.6	739	2.6
640	2.6	665	2.6	690	2.6	715	2.6	740	2.6
641	2.6	666	2.6	691	2.6	716	2.6	741	2.6
642	2.6	667	2.6	692	2.6	717	2.6	742	2.6
643	2.6	668	2.6	693	2.6	718	2.6	743	2.6
644	2.6	669	2.6	694	2.6	719	2.6	744	2.6
645	2.6	670	2.6	695	2.6	720	2.6	745	2.6
646	2.6	671	2.6	696	2.6	721	2.6	746	2.6
647	2.6	672	2.6	697	2.6	722	2.6	747	2.6
648	2.6	673	2.6	698	2.6	723	2.6	748	2.6
649	2.6	674	2.6	699	2.6	724	2.6	749	2.6
650	2.6	675	2.6	700	2.6	725	2.6	750	2.6

Crew: Tony Click Don Schmand Date: 9-1-13 Scale Zeroed: yes

BAG #	Pb(NO3)2 (lb)	BAG #	Pb(NO3)2 (lb)	BAG #	Pb(NO3)2 (lb)	BAG #	Pb(NO3)2 (lb)	BAG #	Pb(NO3)2 (lb)
751	2.6	776	2.6	801	2.6	826	2.6	851	2.6
752	2.6	777	2.6	802	2.6	827	2.6	852	2.6
753	2.6	778	2.6	803	2.6	828	2.6	853	2.6
754	2.6	779	2.6	804	2.6	829	2.6	854	2.6
755	2.6	780	2.6	805	2.6	830	2.6	855	2.6
756	2.6	781	2.6	806	2.6	831	2.6	856	2.6
757	2.6	782	2.6	807	2.6	832	2.6	857	2.6
758	2.6	783	2.5	808	2.6	833	2.6	858	2.6
759	2.6	784	2.6	809	2.6	834	2.6	859	2.6
760	2.6	785	2.6	810	2.6	835	2.6	860	2.6
761	2.6	786	2.6	811	2.6	836	2.6	861	2.6
762	2.6	787	2.6	812	2.6	837	2.6	862	2.6
763	2.6	788	2.6	813	2.6	838	2.6	863	2.6
764	2.6	789	2.6	814	2.6	839	2.6	864	2.6
765	2.6	790	2.6	815	2.6	840	2.6	865	2.6
766	2.6	791	2.6	816	2.6	841	2.6	866	2.6
767	2.6	792	2.6	817	2.6	842	2.6	867	2.6
768	2.6	793	2.6	818	2.6	843	2.6	868	2.6
769	2.6	794	2.6	819	2.6	844	2.6	869	2.6
770	2.6	795	2.6	820	2.6	845	2.6	870	2.6
771	2.6	796	2.6	821	2.6	846	2.6	871	2.6
772	2.6	797	2.6	822	2.6	847	2.6	872	2.6
773	2.6	798	2.6	823	2.6	848	2.6	873	2.6
774	2.6	799	2.6	824	2.6	849	2.6	874	2.6
775	2.6	800	2.6	825	2.6	850	2.6	875	2.6

Crew: Tony Click Jon Scham Date: 9-1-13 Scale Zeroed: yes

BAG #	Pb(NO3)2 (lb)	BAG #	Pb(NO3)2 (lb)	BAG #	Pb(NO3)2 (lb)	BAG #	Pb(NO3)2 (lb)	BAG #	Pb(NO3)2 (lb)
876	2.4	901	2.4	926	2.4	951	2.4	976	2.4
877	2.4	902	2.4	927	2.4	952	2.4	977	2.6
878	2.4	903	2.4	928	2.4	953	2.6	978	2.6
879	2.4	904	2.4	929	2.4	954	2.4	979	2.6
880	2.4	905	2.4	930	2.4	955	2.4	980	2.6
881	2.4	906	2.4	931	2.4	956	2.4	981	2.6
882	2.4	907	2.4	932	2.4	957	2.4	982	2.4
883	2.4	908	2.4	933	2.4	958	2.4	983	2.6
884	2.4	909	2.4	934	2.4	959	2.4	984	2.6
885	2.4	910	2.4	935	2.4	960	2.4	985	2.4
886	2.4	911	2.4	936	2.4	961	2.4	986	2.6
887	2.4	912	2.4	937	2.4	962	2.4	987	2.4
888	2.4	913	2.4	938	2.4	963	2.4	988	2.6
889	2.4	914	2.4	939	2.4	964	2.4	989	2.6
890	2.4	915	2.4	940	2.4	965	2.4	990	2.6
891	2.4	916	2.4	941	2.4	966	2.4	991	2.6
892	2.4	917	2.4	942	2.4	967	2.4	992	2.4
893	2.4	918	2.4	943	2.4	968	2.4	993	2.6
894	2.4	919	2.4	944	2.4	969	2.4	994	2.6
895	2.4	920	2.4	945	2.4	970	2.4	995	2.6
896	2.4	921	2.4	946	2.4	971	2.4	996	2.4
897	2.4	922	2.4	947	2.4	972	2.4	997	2.6
898	2.4	923	2.4	948	2.4	973	2.4	998	2.6
899	2.4	924	2.4	949	2.4	974	2.4	999	2.4
900	2.4	925	2.4	950	2.4	975	2.4	1000	2.4

Crew: Tony Click Don Schannel Date: 9-1-13 Scale Zeroed: yes

BAG #	Pb(NO3)2 (lb)	BAG #	Pb(NO3)2 (lb)	BAG #	Pb(NO3)2 (lb)	BAG #	Pb(NO3)2 (lb)	BAG #	Pb(NO3)2 (lb)
1001	2.4	1026	2.4	1051	2.4	1076	2.6	1101	2.4
1002	2.4	1027	2.4	1052	2.6	1077	2.6	1102	2.6
1003	2.4	1028	2.6	1053	2.4	1078	2.6	1103	2.4
1004	2.4	1029	2.4	1054	2.4	1079	2.6	1104	2.4
1005	2.4	1030	2.6	1055	2.4	1080	2.6	1105	2.4
1006	2.4	1031	2.6	1056	2.4	1081	2.6	1106	2.4
1007	2.6	1032	2.6	1057	2.4	1082	2.6	1107	2.4
1008	2.4	1033	2.4	1058	2.4	1083	2.6	1108	2.4
1009	2.4	1034	2.6	1059	2.6	1084	2.6	1109	2.6
1010	2.6	1035	2.6	1060	2.6	1085	2.6	1110	2.4
1011	2.6	1036	2.6	1061	2.6	1086	2.6	1111	2.6
1012	2.6	1037	2.6	1062	2.6	1087	2.6	1112	2.4
1013	2.6	1038	2.4	1063	2.6	1088	2.6	1113	2.6
1014	2.6	1039	2.4	1064	2.4	1089	2.6	1114	2.6
1015	2.6	1040	2.4	1065	2.4	1090	2.4	1115	2.6
1016	2.4	1041	2.4	1066	2.6	1091	2.6	1116	2.4
1017	2.6	1042	2.6	1067	2.6	1092	2.6	1117	2.4
1018	2.6	1043	2.4	1068	2.4	1093	2.6	1118	2.6
1019	2.6	1044	2.6	1069	2.6	1094	2.6	1119	2.6
1020	2.6	1045	2.6	1070	2.6	1095	2.4	1120	2.4
1021	2.6	1046	2.4	1071	2.6	1096	2.6	1121	2.4
1022	2.6	1047	2.4	1072	2.6	1097	2.6	1122	2.6
1023	2.6	1048	2.4	1073	2.6	1098	2.6	1123	2.6
1024	2.6	1049	2.6	1074	2.6	1099	2.4	1124	2.6
1025	2.6	1050	2.4	1075	2.4	1100	2.4	1125	2.6

Crew: Tony Click Jon Schamel Date: 9-1-13 Scale Zeroed: yes

BAG #	Pb(NO3)2 (lb)	BAG #	Pb(NO3)2 (lb)	BAG #	Pb(NO3)2 (lb)	BAG #	Pb(NO3)2 (lb)	BAG #	Pb(NO3)2 (lb)
1126	2.6	1151	2.6	1176	2.6	1201	2.6	1226	2.6
1127		1152		1177		1202		1227	
1128		1153		1178		1203		1228	
1129		1154		1179		1204		1229	
1130		1155		1180		1205		1230	
1131		1156		1181		1206		1231	
1132		1157		1182		1207		1232	
1133		1158		1183		1208		1233	
1134		1159		1184		1209		1234	
1135		1160		1185		1210		1235	
1136		1161		1186		1211		1236	
1137		1162		1187		1212		1237	
1138		1163		1188		1213		1238	
1139		1164		1189		1214		1239	
1140		1165		1190		1215		1240	
1141		1166		1191		1216		1241	
1142		1167		1192		1217		1242	
1143		1168		1193		1218		1243	
1144		1169		1194		1219		1244	
1145		1170		1195		1220		1245	
1146		1171		1196		1221		1246	
1147	1172	1197	1222	1247					
1148	1173	1198	1223	1248					
1149	1174	1199	1224	1249					
1150	—	1175	—	1200	—	1225	—	1250	—

LEAD NITRATE SPIKE BAGS - Target Weight: 2.6 pounds

Date 10-16-13

Crew Personnel Mike Ludwigson, Dan Schmid
Steve Watson

Shift 1ST

Scale zeroed

BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)
1251	2.6	1276	2.6	1301	2.6	1326	2.6
1252		1277		1302		1327	
1253		1278		1303		1328	
1254		1279		1304		1329	
1255		1280		1305		1330	
1256		1281		1306		1331	
1257		1282		1307		1332	
1258		1283		1308		1333	
1259		1284		1309		1334	
1260		1285		1310		1335	
1261		1286		1311		1336	
1262		1287		1312		1337	
1263		1288		1313		1338	
1264		1289		1314		1339	
1265		1290		1315		1340	
1266		1291		1316		1341	
1267		1292		1317		1342	
1268		1293		1318		1343	
1269		1294		1319		1344	
1270		1295		1320		1345	
1271		1296		1321		1346	
1272		1297		1322		1347	
1273		1298		1323		1348	
1274		1299		1324		1349	
1275		1300		1325		1350	

LEAD NITRATE SPIKE BAGS - Target Weight: 2.6 pounds

Date 10-16-13

Crew Personnel Miko Livingston, Don Schul
Steve Watson

Shift 15T

Scale zeroed

BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)
1351	2.6	1376	2.6	1401	2.6	1426	2.6
1352		1377		1402		1427	
1353		1378		1403		1428	
1354		1379		1404		1429	
1355		1380		1405		1430	
1356		1381		1406		1431	
1357		1382		1407		1432	
1358		1383		1408		1433	
1359		1384		1409		1434	
1360		1385		1410		1435	
1361		1386		1411		1436	
1362		1387		1412		1437	
1363		1388		1413		1438	
1364		1389		1414		1439	
1365		1390		1415		1440	
1366		1391		1416		1441	
1367		1392		1417		1442	
1368		1393		1418		1443	
1369		1394		1419		1444	
1370		1395		1420		1445	
1371		1396		1421		1446	
1372		1397		1422		1447	
1373		1398		1423		1448	
1374		1399		1424		1449	
1375		1400		1425		1450	

LEAD NITRATE SPIKE BAGS - Target Weight: 2.6 pounds

Crew Personnel MIKE LIVINGSTON Don Shank
Sho Water

Date 10-16-13

Shift 1ST

Scale zeroed

BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)
1451	2.6	1476	2.6	1501	2.6	1526	2.6
1452		1477		1502		1527	
1453		1478		1503		1528	
1454		1479		1504		1529	
1455		1480		1505		1530	
1456		1481		1506		1531	
1457		1482		1507		1532	
1458		1483		1508		1533	
1459		1484		1509		1534	
1460		1485		1510		1535	
1461		1486		1511		1536	
1462		1487		1512		1537	
1463		1488		1513		1538	
1464		1489		1514		1539	
1465		1490		1515		1540	
1466		1491		1516		1541	
1467		1492		1517		1542	
1468		1493		1518		1543	
1469		1494		1519		1544	
1470		1495		1520		1545	
1471		1496		1521		1546	
1472		1497		1522		1547	
1473		1498		1523		1548	
1474		1499		1524		1549	
1475		1500		1525		1550	

LEAD NITRATE SPIKE BAGS - Target Weight: 2.6 pounds

Date 10-22-13

Crew Personnel MIKE LINDGREN / Wagon
Stewart

Shift 1st

Scale zeroed

BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)
1551	2.6	1576	2.6	1601	2.6	1626	2.6
1552		1577		1602		1627	
1553		1578		1603		1628	
1554		1579		1604		1629	
1555		1580		1605		1630	
1556		1581		1606		1631	
1557		1582		1607		1632	
1558		1583		1608		1633	
1559		1584		1609		1634	
1560		1585		1610		1635	
1561		1586		1611		1636	
1562		1587		1612		1637	
1563		1588		1613		1638	
1564		1589		1614		1639	
1565		1590		1615		1640	
1566		1591		1616		1641	
1567		1592		1617		1642	
1568		1593		1618		1643	
1569		1594		1619		1644	
1570		1595		1620		1645	
1571		1596		1621		1646	
1572		1597		1622		1647	
1573		1598		1623		1648	
1574		1599		1624		1649	
1575		1600		1625		1650	

LEAD NITRATE SPIKE BAGS - Target Weight: 2.6 pounds

Date 10-22-13

Crew Personnel Mike Livingston/W. [Signature]
[Signature]

Shift 1ST

Scale zeroed

BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)
1651	2.6	1676	2.6	1701	2.6	1726	2.6
1652		1677		1702		1727	
1653		1678		1703		1728	
1654		1679		1704		1729	
1655		1680		1705		1730	
1656		1681		1706		1731	
1657		1682		1707		1732	
1658		1683		1708		1733	
1659		1684		1709		1734	
1660		1685		1710		1735	
1661		1686		1711		1736	
1662		1687		1712		1737	
1663		1688		1713		1738	
1664		1689		1714		1739	
1665		1690		1715		1740	
1666		1691		1716		1741	
1667		1692		1717		1742	
1668		1693		1718		1743	
1669		1694		1719		1744	
1670		1695		1720		1745	
1671		1696		1721		1746	
1672		1697		1722		1747	
1673		1698		1723		1748	
1674		1699		1724		1749	
1675		1700		1725		1750	

LEAD NITRATE SPIKE BAGS - Target Weight: 2.6 pounds

Crew Personnel

Bart Kenner *Paul Kenner*

Date 10-29-13

Shift 1ST

Scale zeroed YES

BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)
1751	2.6	1776	2.6	1801		1826	
1752		1777		1802		1827	
1753		1778		1803		1828	
1754		1779		1804		1829	
1755		1780		1805		1830	
1756		1781		1806		1831	
1757		1782		1807		1832	
1758		1783		1808		1833	
1759		1784		1809		1834	
1760		1785		1810		1835	
1761		1786		1811		1836	
1762		1787		1812		1837	
1763		1788		1813		1838	
1764		1789		1814		1839	
1765		1790		1815		1840	
1766		1791		1816		1841	
1767		1792		1817		1842	
1768		1793		1818		1843	
1769		1794		1819		1844	
1770		1795		1820		1845	
1771		1796		1821		1846	
1772	1797	1822		1847			
1773	1798	1823		1848			
1774	1799	1824		1849			
1775		1800		1825		1850	

CP 10/29/13 B-55

Mercuric Nitrate Spike Preparation Sheets

MERCURY NITRATE SPIKE VIALS - Target Volume: 10 milliliters

Date 9-30-13

Personnel

FHF [Signature] C.B. [Signature]

Shift 7-3⁰⁰ Day

Pump calibrated YES 10ml

VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)
1	10 ml	26	10 ml	51	10 ml	76	10 ml
2	↓	27	↓	52	↓	77	↓
3	↓	28	↓	53	↓	78	↓
4	↓	29	↓	54	↓	79	↓
5	↓	30	↓	55	↓	80	↓
6	↓	31	↓	56	↓	81	↓
7	↓	32	↓	57	↓	82	↓
8	↓	33	↓	58	↓	83	↓
9	↓	34	↓	59	↓	84	↓
10	↓	35	↓	60	↓	85	↓
11	↓	36	↓	61	↓	86	↓
12	↓	37	↓	62	↓	87	↓
13	↓	38	↓	63	↓	88	↓
14	↓	39	↓	64	↓	89	↓
15	↓	40	↓	65	↓	90	↓
16	↓	41	↓	66	↓	91	↓
17	↓	42	↓	67	↓	92	↓
18	↓	43	↓	68	↓	93	↓
19	↓	44	↓	69	↓	94	↓
20	↓	45	↓	70	↓	95	↓
21	↓	46	↓	71	↓	96	↓
22	↓	47	↓	72	↓	97	↓
23	↓	48	↓	73	↓	98	↓
24	↓	49	↓	74	↓	99	↓
25	↓	50	✓	75	↓	100	↓

MERCURY NITRATE SPIKE VIALS - Target Volume: 10 milliliters

Date 9-30-13

Personnel

F.H.F. [Signature] CB [Signature]

Shift 7-30 Days

Pump calibrated Yes 10ml

VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)				
101	10ml	126	10 ml	151	10ml	176	10ml				
102	↓	127	↓	152	↓	177	↓				
103		128		153		178					
104		129		154		179					
105		130		155		180					
106		131		156		181					
107		132		157		182					
108		133		158		183					
109		134		159		184					
110		135		160		185					
111		136		161		186					
112		137		162		187					
113		138		163		188					
114		139		164		189					
115		140		165		190					
116		141		166		191					
117		142		167		192					
118		143		168		193					
119		144		169		194					
120		145		170		195					
121		146		171		196					
122		147		172		197					
123		148		173		198					
124		149		174		199					
125		↓		150		↓		175	↓	200	↓

MERCURY NITRATE SPIKE VIALS - Target Volume: 10 milliliters

Date 10/1/13

Personnel

F.H.F. J.H.F. J.M. Jones M. G. L. C. B. Clarence B. Ryan

Shift 7-3³⁰ Days

Pump calibrated Yes 10ml FHR

VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)
201	10 ml	226	10 ml	251	10 mL	276	10 ml
202		227		252		277	
203		228		253		278	
204		229		254		279	
205		230		255		280	
206		231		256		281	
207		232		257		282	
208		233		258		283	
209		234		259		284	
210		235		260		285	
211		236		261		286	
212		237		262		287	
213		238		263		288	
214		239		264		289	
215		240		265		290	
216		241		266		291	
217		242		267		292	
218		243		268		293	
219		244		269		294	
220		245		270		295	
221		246		271		296	
222		247		272		297	
223		248		273		298	
224		249		274		299	
225		250		275		300	

MERCURY NITRATE SPIKE VIALS - Target Volume: 10 milliliters

Date 10/1/13

Personnel

F.H.F. Jim Jessie
CB Clarence Byrum

Shift 7-330 DAY

Pump calibrated Yes pmf F.H.F.

VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)
301	10	326	10	351	10	376	10
302	↓	327	↓	352	↓	377	↓
303		328		353		378	
304		329		354		379	
305		330		355		380	
306		331		356		381	
307		332		357		382	
308		333		358		383	
309		334		359		384	
310		335		360		385	
311		336		361		386	
312		337		362		387	
313		338		363		388	
314		339		364		389	
315		340		365		390	
316		341		366		391	
317		342		367		392	
318		343		368		393	
319		344		369		394	
320		345		370		395	
321		346		371		396	
322	347	372	397				
323	348	373	398				
324	349	374	399				
325	↓	350	↓	375	↓	400	↓

MERCURY NITRATE SPIKE MALS - Target Volume: 10 milliliters

Date 10/1/13

Personnel F.H.F. [Signature] Jim Garcia [Signature]
CB Clarence Byrum

Shift 7-30 DAY

Pump calibrated Yes Pml FNF

VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)
401	10	426	10	451	10	476	10
402	↓	427	↓	452	↓	477	↓
403	↓	428	↓	453	↓	478	↓
404	↓	429	↓	454	↓	479	↓
405	↓	430	↓	455	↓	480	↓
406	↓	431	↓	456	↓	481	↓
407	↓	432	↓	457	↓	482	↓
408	↓	433	↓	458	↓	483	↓
409	↓	434	↓	459	↓	484	↓
410	↓	435	↓	460	↓	485	↓
411	↓	436	↓	461	↓	486	↓
412	↓	437	↓	462	↓	487	↓
413	↓	438	↓	463	↓	488	↓
414	↓	439	↓	464	↓	489	↓
415	↓	440	↓	465	↓	490	↓
416	↓	441	↓	466	↓	491	↓
417	↓	442	↓	467	↓	492	↓
418	↓	443	↓	468	↓	493	↓
419	↓	444	↓	469	↓	494	↓
420	↓	445	↓	470	↓	495	↓
421	↓	446	↓	471	↓	496	↓
422	↓	447	↓	472	↓	497	↓
423	↓	448	↓	473	↓	498	↓
424	↓	449	↓	474	↓	499	↓
425	↓	450	↓	475	↓	500	↓

MERCURY NITRATE SPIKE VIALS - Target Volume: 10 milliliters

Date 10-2-13

Personnel F.H.F. [Signature] CB [Signature]

Shift 7-3⁰⁰ DAY

Pump calibrated Yes 10ml/FHR

VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)
501	10	526	10	551	10	576	10
502		527		552		577	
503		528		553		578	
504		529		554		579	
505		530		555		580	
506		531		556		581	
507		532		557		582	
508		533		558		583	
509		534		559		584	
510		535		560		585	
511		536		561		586	
512		537		562		587	
513		538		563		588	
514		539		564		589	
515		540		565		590	
516		541		566		591	
517		542		567		592	
518		543		568		593	
519		544		569		594	
520		545		570		595	
521		546		571		596	
522		547		572		597	
523		548		573		598	
524		549		574		599	
525		550		575		600	

MERCURY NITRATE SPIKE VIALS - Target Volume: 10 milliliters

Personnel F.HF AK CB GW

Date 10-2-13

Shift 7-350 DAY

Pump calibrated Yes 10ml FHF

VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)
601	10	626	10	651	10	676	10
602		627		652		677	
603		628		653		678	
604		629		654		679	
605		630		655		680	
606		631		656		681	
607		632		657		682	
608		633		658		683	
609		634		659		684	
610		635		660		685	
611		636		661		686	
612		637		662		687	
613		638		663		688	
614		639		664		689	
615		640		665		690	
616		641		666		691	
617		642		667		692	
618		643		668		693	
619		644		669		694	
620		645		670		695	
621		646		671		696	
622		647		672		697	
623		648		673		698	
624		649		674		699	
625		650		675		700	

MERCURY NITRATE SPIKE VIALS - Target Volume: 10 milliliters

Personnel

F.H.F. [Signature] EB C.H.D. [Signature]

Date 10-2-13

Shift 7-3³⁰ DAY

Pump calibrated yes 10ml FHF

VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)
701	10	726	10	751	10	776	10
702	↓	727	↓	752	↓	777	
703		728		753		778	
704		729		754		779	
705		730		755		780	
706		731		756		781	
707		732		757		782	
708		733		758		783	
709		734		759		784	
710		735		760		785	
711		736		761		786	
712		737		762		787	
713		738		763		788	
714		739		764		789	
715		740		765		790	
716		741		766		791	
717		742		767		792	
718		743		768		793	
719		744		769		794	
720		745		770		795	
721		746		771		796	
722		747		772		797	
723		748		773		798	
724		749		774		799	
725		750		775		800	

MERCURY NITRATE SPIKE VIALS - Target Volume: 10 milliliters

Date 10-2-13

Personnel FHF JLF CB CB

Shift 7-330 DAY

Pump calibrated YES 10ml FHF

VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)
801	10	826	10	851	10	876	10
802		827		852		877	
803		828		853		878	
804		829		854		879	
805		830		855		880	
806		831		856		881	
807		832		857		882	
808		833		858		883	
809		834		859		884	
810		835		860		885	
811		836		861		886	
812		837		862		887	
813		838		863		888	
814		839		864		889	
815		840		865		890	
816		841		866		891	
817		842		867		892	
818		843		868		893	
819		844		869		894	
820		845		870		895	
821		846		871		896	
822		847		872		897	
823		848		873		898	
824		849		874		899	
825		850		875		900	

MERCURY NITRATE SPIKE VIALS - Target Volume: 10 milliliters

Personnel

F.H.F

[Handwritten signature]

CB CB

Date 10/4/13

Shift 7-3³⁰ DAY

Pump calibrated yes 10ml FHC

VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)
901	10	926	10	951	10	976	10
902	<i>[Handwritten vertical line with arrow at top and bottom]</i>	927	<i>[Handwritten vertical line with arrow at top and bottom]</i>	952	<i>[Handwritten vertical line with arrow at top and bottom]</i>	977	<i>[Handwritten vertical line with arrow at top and bottom]</i>
903		928		953		978	
904		929		954		979	
905		930		955		980	
906		931		956		981	
907		932		957		982	
908		933		958		983	
909		934		959		984	
910		935		960		985	
911		936		961		986	
912		937		962		987	
913		938		963		988	
914		939		964		989	
915		940		965		990	
916		941		966		991	
917		942		967		992	
918		943		968		993	
919		944		969		994	
920		945		970		995	
921		946		971		996	
922	947	972	997				
923	948	973	998				
924	949	974	999				
925	950	975	1000				

MERCURY NITRATE SPIKE VIALS - Target Volume: 10 milliliters

Personnel

F. RF

[Handwritten signature]

C. B *[Handwritten initials]*

Date 10/4/13

Shift 7-3⁰⁰ Day

Pump calibrated Yes 10ml

VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)
1001	10	1026	10	1051	10	1076	10
1002	↓	1027	↓	1052	↓	1077	↓
1003	↓	1028	↓	1053	↓	1078	↓
1004	↓	1029	↓	1054	↓	1079	↓
1005	↓	1030	↓	1055	↓	1080	↓
1006	↓	1031	↓	1056	↓	1081	↓
1007	↓	1032	↓	1057	↓	1082	↓
1008	↓	1033	↓	1058	↓	1083	↓
1009	↓	1034	↓	1059	↓	1084	↓
1010	↓	1035	↓	1060	↓	1085	↓
1011	↓	1036	↓	1061	↓	1086	↓
1012	↓	1037	↓	1062	↓	1087	↓
1013	↓	1038	↓	1063	↓	1088	↓
1014	↓	1039	↓	1064	↓	1089	↓
1015	↓	1040	↓	1065	↓	1090	↓
1016	↓	1041	↓	1066	↓	1091	↓
1017	↓	1042	↓	1067	↓	1092	↓
1018	↓	1043	↓	1068	↓	1093	↓
1019	↓	1044	↓	1069	↓	1094	↓
1020	↓	1045	↓	1070	↓	1095	↓
1021	↓	1046	↓	1071	↓	1096	↓
1022	↓	1047	↓	1072	↓	1097	↓
1023	↓	1048	↓	1073	↓	1098	↓
1024	↓	1049	↓	1074	↓	1099	↓
1025	↓	1050	↓	1075	↓	1100	↓

MERCURY NITRATE SPIKE VIALS - Target Volume: 10 milliliters

Personnel

F.H.F. J.H.F. CB C.B.

Date 10/4/13

Shift 7-330 DAY

Pump calibrated yes (10ml)

VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)		
1101	10 ml	1126	10.	1151		1176			
1102	↓	1127	↓	1152		1177			
1103		1128		1153		1178			
1104		1129		1154		1179			
1105		1130		1155		1180			
1106		1131		1156		1181			
1107		1132		1157		1182			
1108		1133		1158		1183			
1109		1134		1159		1184			
1110		1135		1160		1185			
1111		1136		1161		1186			
1112		1137		1162		1187			
1113		1138		1163		1188			
1114		1139		1164		1189			
1115		1140		1165		1190			
1116		1141		↓	1166	1191			
1117		1142			1167	1192			
1118		1143			1168	1193			
1119		1144			1169	1194			
1120		1145			1170	1195			
1121		1146			1171	1196			
1122		1147			1172	1197			
1123		1148			1173	1198			
1124		1149			1174	1199			
1125		↓		1150		1175		1200	

MERCURY NITRATE SPIKE VIALS - Target Volume: 10 milliliters

Personnel

F.H.F.

Date 10-29-13

Shift Day 7³⁰ - 4⁰⁰

Pump calibrated yes 10ml F.H.F.

VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)
1101		1126		1151	10ml	1176	10ml
1102		1127		1152		1177	
1103		1128		1153		1178	
1104		1129		1154		1179	
1105		1130		1155		1180	
1106		1131		1156		1181	
1107		1132		1157		1182	
1108		1133		1158		1183	
1109		1134		1159		1184	
1110		1135		1160		1185	
1111		1136		1161		1186	
1112		1137		1162		1187	
1113		1138		1163		1188	
1114		1139		1164		1189	
1115		1140		1165		1190	
1116		1141		1166		1191	
1117		1142	10ml	1167		1192	
1118		1143		1168		1193	
1119		1144		1169		1194	
1120		1145		1170		1195	
1121		1146		1171		1196	
1122		1147		1172		1197	
1123		1148		1173		1198	
1124		1149		1174		1199	
1125		1150		1175		1200	

MERCURY NITRATE SPIKE VIALS - Target Volume: 10 milliliters

Personnel

F.H.F. [Signature]

Date 10-29-13

Shift 7³⁰-4²⁰ Day

Pump calibrated Yes [Signature]

VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)
1201	10 ml	1226	10 ml	1251	10 ml	1276	10 ml
1202	↓	1227	↓	1252	↓	1277	↓
1203		1228		1253		1278	
1204		1229		1254		1279	
1205		1230		1255		1280	
1206		1231		1256		1281	
1207		1232		1257		1282	
1208		1233		1258		1283	
1209		1234		1259		1284	
1210		1235		1260		1285	
1211		1236		1261		1286	
1212		1237		1262		1287	
1213		1238		1263		1288	
1214		1239		1264		1289	
1215		1240		1265		1290	
1216		1241		1266		1291	
1217		1242		1267		1292	
1218		1243		1268		1293	
1219		1244		1269		1294	
1220		1245		1270		1295	
1221		1246		1271		1296	
1222		1247		1272		1297	
1223		1248		1273		1298	
1224		1249		1274		1299	
1225		1250		1275		1300	

MERCURY NITRATE SPIKE VIALS - Target Volume: 10 milliliters

Personnel

F.H.F. [Signature]

Date 10-29-13

Shift DAY 7⁰⁰-4⁰⁰A

Pump calibrated yes 10ml [Signature]

VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)
1301	10 ml	1326	10 ml	1351		1376	
1302		1327		1352		1377	
1303		1328		1353		1378	
1304		1329		1354		1379	
1305		1330		1355		1380	
1306		1331		1356		1381	
1307		1332		1357		1382	
1308		1333		1358		1383	
1309		1334		1359		1384	
1310		1335		1360		1385	
1311		1336		1361		1386	
1312		1337		1362		1387	
1313		1338		1363		1388	
1314		1339		1364		1389	
1315		1340		1365		1390	
1316		1341		1366		1391	
1317		1342		1367		1392	
1318		1343		1368		1393	
1319		1344		1369		1394	
1320		1345		1370		1395	
1321		1346		1371		1396	
1322		1347		1372		1397	
1323		1348		1373		1398	
1324		1349		1374		1399	
1325		1350		1375		1400	

MERCURY NITRATE SPIKE VIALS - Target Volume: 20 milliliters

Date 10-21-13

Personnel F.H.E. J.M.H.
J. McCuller C3 CB

Shift Day 8⁰⁰ - 4³⁰

Pump calibrated yes 10 ml
11/10/21/13

VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)
2001	20	2026	20	2051	20	2076	20
2002		2027		2052		2077	
2003		2028		2053		2078	
2004		2029		2054		2079	
2005		2030		2055		2080	
2006		2031		2056		2081	
2007		2032		2057		2082	
2008		2033		2058		2083	
2009		2034		2059		2084	
2010		2035		2060		2085	
2011		2036		2061		2086	
2012		2037		2062		2087	
2013		2038		2063		2088	
2014		2039		2064		2089	
2015		2040		2065		2090	
2016		2041		2066		2091	
2017		2042		2067		2092	
2018		2043		2068		2093	
2019		2044		2069		2094	
2020		2045		2070		2095	
2021		2046		2071		2096	
2022		2047		2072		2097	
2023		2048		2073		2098	
2024		2049		2074		2099	
2025	↓	2050	↓	2075	↓	2100	↓

MERCURY NITRATE SPIKE VIALS - Target Volume: 20 milliliters

Date 10-21-13

Personnel F.H.F. J.H.F.

Shift DAY 8⁰⁰ - 4³⁰

Jessie McCulla CB CB

Pump calibrated 4 ppm

VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)
2101	20	2126	20	2151	20	2176	20
2102		2127		2152		2177	
2103		2128		2153		2178	
2104		2129		2154		2179	
2105		2130		2155		2180	
2106		2131		2156		2181	
2107		2132		2157		2182	
2108		2133		2158		2183	
2109		2134		2159		2184	
2110		2135		2160		2185	
2111		2136		2161		2186	
2112		2137		2162		2187	
2113		2138		2163		2188	
2114		2139		2164		2189	
2115		2140		2165		2190	
2116		2141		2166		2191	
2117		2142		2167		2192	
2118		2143		2168		2193	
2119		2144		2169		2194	
2120		2145		2170		2195	
2121		2146		2171		2196	
2122		2147		2172		2197	
2123		2148		2173		2198	
2124		2149		2174		2199	
2125		2150		2175		2200	

MERCURY NITRATE SPIKE VIALS - Target Volume: 20 milliliters

Date 10

Personnel

F.H.R. 7/10/21/13
James McCallister CB CB

Shift Day 8-4⁵⁰

Pump calibrated Yes 10 ml

VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)
2201	20	2226	20	2251	20	2276	20
2202		2227		2252		2277	
2203		2228		2253		2278	
2204		2229		2254		2279	
2205		2230		2255		2280	
2206		2231		2256		2281	
2207		2232		2257		2282	
2208		2233		2258		2283	
2209		2234		2259		2284	
2210		2235		2260		2285	
2211		2236		2261		2286	
2212		2237		2262		2287	
2213		2238		2263		2288	
2214		2239		2264		2289	
2215		2240		2265		2290	
2216		2241		2266		2291	
2217		2242		2267		2292	
2218		2243		2268		2293	
2219		2244		2269		2294	
2220		2245		2270		2295	
2221		2246		2271		2296	
2222		2247		2272		2297	
2223		2248		2273		2298	
2224		2249		2274		2299	
2225		2250		2275		2300	

MERCURY NITRATE SPIKE VIALS - Target Volume: 20 milliliters

Personnel

F.H.F. [Signature]
Jessie [Signature] C.B. CB

Date 10/21/13

Shift Day 800-1300

Pump calibrated Yes 10m

VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)
2301	20	2326	20	2351	20	2376	20
2302	↓	2327	↓	2352	↓	2377	↓
2303	↓	2328	↓	2353	↓	2378	↓
2304	↓	2329	↓	2354	↓	2379	↓
2305	↓	2330	↓	2355	↓	2380	↓
2306	↓	2331	↓	2356	↓	2381	↓
2307	↓	2332	↓	2357	↓	2382	↓
2308	↓	2333	↓	2358	↓	2383	↓
2309	↓	2334	↓	2359	↓	2384	↓
2310	↓	2335	↓	2360	↓	2385	↓
2311	↓	2336	↓	2361	↓	2386	↓
2312	↓	2337	↓	2362	↓	2387	↓
2313	↓	2338	↓	2363	↓	2388	↓
2314	↓	2339	↓	2364	↓	2389	↓
2315	↓	2340	↓	2365	↓	2390	↓
2316	↓	2341	↓	2366	↓	2391	↓
2317	↓	2342	↓	2367	↓	2392	↓
2318	↓	2343	↓	2368	↓	2393	↓
2319	↓	2344	↓	2369	↓	2394	↓
2320	↓	2345	↓	2370	↓	2395	↓
2321	↓	2346	↓	2371	↓	2396	↓
2322	↓	2347	↓	2372	↓	2397	↓
2323	↓	2348	↓	2373	↓	2398	↓
2324	↓	2349	↓	2374	↓	2399	↓
2325	↓	2350	↓	2375	↓	2400	↓

MERCURY NITRATE SPIKE VIALS - Target Volume: 20 milliliters

Date 10-21-13

Personnel

F.H.F. JHFD

Shift Day 0600-1300

Jeanie or Sullivan C.B. CB

Pump calibrated Yes 10/21/13

VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)
2401	20	2426	20	2451	20	2476	20
2402		2427		2452		2477	
2403		2428		2453		2478	
2404		2429		2454		2479	
2405		2430		2455		2480	
2406		2431		2456		2481	
2407		2432		2457		2482	
2408		2433		2458		2483	
2409		2434		2459		2484	
2410		2435		2460		2485	
2411		2436		2461		2486	
2412		2437		2462		2487	
2413		2438		2463		2488	
2414		2439		2464		2489	
2415		2440		2465		2490	
2416		2441		2466		2491	
2417		2442		2467		2492	
2418		2443		2468		2493	
2419		2444		2469		2494	
2420		2445		2470		2495	
2421		2446		2471		2496	
2422		2447		2472		2497	
2423		2448		2473		2498	
2424		2449		2474		2499	
2425		2450		2475		2500	

MERCURY NITRATE SPIKE VIALS - Target Volume: 20 milliliters

Date 10-21-13

Personnel R. NR [Signature]
[Signature] CB [Signature]

Shift Day 8-430

Pump calibrated Yes 10ml
10/21/13

VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)	VIAL #	VOLUME (ml)
2501	20	2526	20	2551	20	2576	20
2502		2527		2552		2577	
2503		2528		2553		2578	
2504		2529		2554		2579	
2505		2530		2555		2580	
2506		2531		2556		2581	
2507		2532		2557		2582	
2508		2533		2558		2583	
2509		2534		2559		2584	
2510		2535		2560		2585	
2511		2536		2561		2586	
2512		2537		2562		2587	
2513		2538		2563		2588	
2514		2539		2564		2589	
2515		2540		2565		2590	
2516		2541		2566		2591	
2517		2542		2567		2592	
2518		2543		2568		2593	
2519		2544		2569		2594	
2520		2545		2570		2595	
2521		2546		2571		2596	
2522		2547		2572		2597	
2523		2548		2573		2598	
2524		2549		2574		2599	
2525		2550		2575		2600	

Hexachloroethane Spike Preparation Sheets

HEXACHLOROETHANE SPIKE BAGS Target Weight: 5.8 pounds

Date 9-30-13

Crew Personnel DAVID HALAYONICH
TERRY DOVER

Shift 1ST

Scale zeroed YES

BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)	
1	5.8	26	5.8	51	5.8	76	5.8	
2		27		52		77		
3		28		53		78		
4		29		54		79		
5		30		55		80		
6		31		56		81		
7		32		57		82		
8		33		58		83		
9		34		59		84		
10		35		60		85		
11		36		61		86		
12		37		62		87		
13		38		63		88		
14		39		64		89		5.8 CW
15		40		65		90		
16		41		66		91		
17		42		67		92		
18		43		68		93		
19		44		69		94		
20		45		70		95		
21		46		71		96		
22		47		72		97		
23		48		73		98		
24		49		74		99		
25		50		75		100		

HEXACHLOROETHANE SPIKE BAGS - Target Weight: 5.8 pounds

Date 10-2-13

Crew Personnel Dennis Schlemmer
Steve Watson / ew Stu Watson

Shift 1

Scale zeroed

BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)
101	5.8 cw	126	5.8 cw	151	DS 5.8	176	DS 5.8
102		127		152		177	
103		128		153		178	
104		129		154		179	
105		130		155		180	
106		131		156		181	
107		132		157		182	
108		133		158		183	
109		134		159		184	DS 5.8
110		135		160		185	
111		136		161		186	
112		137		162		187	
113		138		163		188	
114		139		164		189	
115		140	DS 5.8	165		190	
116		141		166		191	
117		142		167		192	
118		143		168		193	
119		144		169		194	
120		145		170		195	
121		146		171		196	
122		147		172		197	
123		148		173		198	
124		149		174		199	
125		150		175		200	

HEXACHLOROETHANE SPIKE BAGS - Target Weight: 5.8 pounds

Date 10-2-13

Crew Personnel Steve Watson

Shift 1

Dennis Schlemmer

Scale zeroed

BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)
201	5.8	226	5.8 DS	251	5.8 CW	276	5.8 CW
202	↓	227		252		277	↓
203	5.8 CW	228		253		278	↓
204		229		254		279	↓
205		230		255		280	↓
206	↓	231		256		281	TC 5.8
207	DS 5.8	232		257		282	
208		233		258		283	*
209		234		259		284	*
210		235		260		285	
211		236		261		286	
212		237		262		287	
213		238		263		288	
214		239		264		289	
215		240	↓	265		290	
216		241	CW 5.8	266		291	
217		242		267		292	
218		243		268		293	
219		244		269		294	
220		245		270		295	
221		246		271		296	
222		247		272		297	
223		248		273		298	
224		249	↓	274		299	
225		250	↓	275	↓	300	↓

HEXACHLOROETHANE SPIKE BAGS - Target Weight: 5.8 pounds

Date 9-30-13

Crew Personnel DAVID HALAVONICH

Shift 1ST

TERRY DOVER

Scale zeroed YES

BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)	
301	DS 5.8	326	DS 5.8	351	5.8 DS	376	5.8	
302		327		352		377		
303		328		353		378		
304		329		354		379		
305		330		355		380		
306		331		356		381		
307		332		357		382		
308		333		358		383		
309		334		359		384		
310		335		360		385		
311		336		361		386		
312		337		362		5.8		
313		338		363				388
314		339		364				389
315		340		365				390
316		341		366				391
317		342		367				392
318		343		368				393
319		344		369				394
320		345		370				395
321		346		371				396
322		347		372				397
323		348		373				398
324		349		374				399
325		350		375				400

HEXACHLOROETHANE SPIKE BAGS Target Weight: 5.8 pounds

Date 9-30-13

Crew Personnel DAVID HALAVONICH

Shift 1st

TERRY DOVER

Scale zeroed YES

BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)
401	5.8	426	5.8	451	5.8	476	5.8
402		427		452		477	
403		428		453		478	
404		429		454		479	
405		430		455		480	
406		431		456		481	
407		432		457		482	
408		433		458		483	
409		434		459		484	
410		435		460		485	
411		436		461		486	
412		437		462		487	
413		438		463		488	
414		439		464		489	
415		440		465		490	
416		441		466		491	
417		442		467		492	
418		443		468		493	
419		444		469		494	
420		445		470		495	
421	5.8	446		471		496	
422		447		472		497	
423		448		473		498	
424		449		474		499	
425		450		475		500	

HEXACHLOROETHANE SPIKE BAGS Target Weight: 5.8 pounds

Date 9-30-13

Crew Personnel DAVID HALAVONICH

Shift 1st

TERRY DOVER

Scale zeroed YES

BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)
501	5.8	526	5.8	551	5.8	576	5.8
502		527		552		577	
503		528		553		578	
504		529		554		579	
505		530		555		580	
506		531		556		581	
507		532		557		582	
508		533		558		583	
509		534		559		584	
510		535		560		585	
511		536		561		586	
512		537		562		587	
513		538		563		588	
514		539		564		589	
515		540		565		590	
516		541		566		591	
517		542		567		592	
518		543		568		593	
519		544		569		594	
520		545	5.8	570		595	
521		546		571		596	
522		547		572		597	
523		548		573		598	
524		549		574		599	
525		550		575		600	

HEXACHLOROETHANE SPIKE BAGS - Target Weight: 5.8 pounds

Date 10-3-13

Crew Personnel Way Dunt

Shift 1

Scale zeroed ✓

BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)
601	5.8	626	5.8	651	5.8 ND	676	5.8 ND
602		627		652		677	
603		628		653		678	
604		629		654		679	
605		630		655		680	
606		631		656		681	
607		632		657		682	
608		633		658		683	
609		634		659		684	
610		635		660		685	
611		636		661		686	
612		637		662		687	
613		638		663		688	
614		639		664		689	
615		640		665		690	
616		641		666		691	
617		642		667		692	
618		643		668		693	
619		644		669		694	
620		645		670		695	
621		646	5.8 ND	671		696	
622		647		672		697	
623		648		673		698	
624		649		674		699	
625		650		675		700	

HEXACHLOROETHANE SPIKE BAGS - Target Weight: 5.8 pounds

Date 10-3-13

Crew Personnel Don Schmitt (David Schul)
Ward, metulic

Shift 1

Scale zeroed ✓

BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)
701	5.8 WD	726	5.8	751	5.8	776	5.8 DS
702		727		752		777	
703		728		753		778	
704		729		754		779	
705		730		755		780	
706	5.8	731		756		781	
707		732		757		782	
708		733		758		783	
709		734		759		784	
710		735		760		785	
711		736		761		786	
712		737		762		787	
713		738		763		788	
714		739		764		789	
715		740		765		790	
716		741		766	5.8 DS	791	
717		742		767	5.8 DS	792	
718		743		768		793	
719		744		769		794	
720		745		770		795	
721		746		771		796	
722		747		772		797	
723		748		773		798	
724		749		774		799	
725		750		775		800	

HEXACHLOROETHANE SPIKE BAGS - Target Weight 5.8 pounds

Date 10-3-13

Crew Personnel Tony Chick / Tony Chick

Shift 1

DON SCHAMUEL / Don Schamuel

Scale zeroed

BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)
801	5.8 DS	826	5.8 DS	851	5.8 DS	876	5.8 DS
802		827		852		877	
803		828		853		878	
804		829		854		879	
805		830		855		880	
806		831		856		881	
807		832		857		882	
808		833		858		883	
809		834		859		884	
810		835		860		885	
811		836		861		886	5.8 TR
812		837		862		887	
813		838		863		888	
814		839		864		889	
815		840		865		890	
816		841		866		891	
817		842		867		892	
818		843		868		893	
819		844		869		894	
820		845		870		895	
821		846		871		896	
822		847		872		897	
823		848		873		898	
824		849		874		899	
825	5.8 DS	850		875		900	

HEXACHLOROETHANE SPIKE BAGS Target Weight: 5.8 pounds

Date 10-3-13

Crew Personnel Tony Click Tony Click

Shift 1

Scale zeroed

BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)
901	5.8 TC	926	5.8 TC	951	5.8 TC	976	5.8 TC
902		927		952		977	
903		928		953		978	
904		929		954		979	
905		930		955		980	
906		931		956		981	
907		932		957		982	
908		933		958		983	
909		934		959		984	
910		935		960		985	
911		936		961		986	
912		937		962		987	
913		938		963		988	
914		939		964		989	
915		940		965		990	
916		941		966		991	
917		942		967		992	
918		943		968		993	
919		944		969		994	
920		945		970		995	
921		946	←	971		996	
922		947	5.8 TC	972		997	
923		948		973		998	
924		949		974		999	
925		950		975		1000	

HEXACHLOROETHANE SPIKE BAGS - Target Weight: 5.8 pounds

Date 10-3-13

Crew Personnel Tony Click / Jay Click
Way Demetrios

Shift 1

Scale zeroed

BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)
1001	5.8 TC	1026	5.8 WD	1051	5.8 WD	1076	5.8 TC
1002		1027		1052		1077	
1003		1028		1053		1078	
1004		1029		1054		1079	
1005		1030		1055		1080	
1006		1031		1056		1081	
1007		1032		1057		1082	
1008		1033		1058		1083	
1009	5.8 lbs. WD	1034		1059		1084	
1010		1035		1060		1085	
1011		1036		1061		1086	
1012		1037		1062		1087	
1013		1038		1063		1088	
1014		1039		1064		1089	
1015		1040		1065		1090	
1016		1041		1066		1091	
1017		1042		1067		1092	
1018		1043		1068		1093	
1019		1044		1069	5.5 TC	1094	
1020		1045		1070		1095	
1021		1046		1071		1096	
1022		1047		1072		1097	
1023		1048		1073		1098	
1024		1049		1074		1099	
1025		1050		1075		1100	

HEXACHLOROETHANE SPIKE BAGS - Target Weight: 5.8 pounds

Date 10-4-13

Crew Personnel Tony Chok

Shift 1

Scale zeroed φ

BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)
1101	5.8	1126	5.8	1151	5.8	1176	5.8
1102		1127		1152		1177	
1103		1128		1153		1178	
1104		1129		1154		1179	
1105		1130		1155		1180	
1106		1131		1156		1181	
1107		1132		1157		1182	
1108		1133		1158		1183	
1109		1134		1159		1184	
1110		1135		1160		1185	
1111		1136		1161		1186	
1112		1137		1162		1187	
1113		1138		1163		1188	
1114		1139		1164		1189	
1115		1140		1165		1190	
1116		1141		1166		1191	
1117		1142		1167		1192	
1118		1143		1168		1193	
1119		1144		1169		1194	
1120		1145		1170		1195	
1121		1146		1171		1196	
1122		1147		1172		1197	
1123		1148		1173		1198	
1124		1149		1174		1199	
1125		1150		1175		1200	

HEXACHLOROETHANE SPIKE BAGS - Target Weight: 5.8 pounds

Date 10-16-13

Crew Personnel Mike Livingston, Don Schmal, Steve Watson

Shift 1ST

Scale zeroed

BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)
1201	5.8	1226	5.8	1251	5.8	1276	5.8
1202	5.8	1227	5.8	1252	5.8	1277	5.8
1203	5.8	1228	5.8	1253	5.8	1278	5.8
1204	5.8	1229	5.8	1254	5.8	1279	5.8
1205	5.8	1230	5.8	1255	5.8	1280	5.8
1206	5.8	1231	5.8	1256	5.8	1281	5.8
1207	5.8	1232	5.8	1257	5.8	1282	5.8
1208	5.8	1233	5.8	1258	5.8	1283	5.8
1209	5.8	1234	5.8	1259	5.8	1284	5.8
1210	5.8	1235	5.8	1260	5.8	1285	5.8
1211	5.8	1236	5.8	1261	5.8	1286	5.8
1212	5.8	1237	5.8	1262	5.8	1287	5.8
1213	5.8	1238	5.8	1263	5.8	1288	5.8
1214	5.8	1239	5.8	1264	5.8	1289	5.8
1215	5.8	1240	5.8	1265	5.8	1290	5.8
1216	5.8	1241	5.8	1266	5.8	1291	5.8
1217	5.8	1242	5.8	1267	5.8	1292	5.8
1218	5.8	1243	5.8	1268	5.8	1293	5.8
1219	5.8	1244	5.8	1269	5.8	1294	5.8
1220	5.8	1245	5.8	1270	5.8	1295	5.8
1221	5.8	1246	5.8	1271	5.8	1296	5.8
1222	5.8	1247	5.8	1272	5.8	1297	5.8
1223	5.8	1248	5.8	1273	5.8	1298	5.8
1224	5.8	1249	5.8	1274	5.8	1299	5.8
1225	5.8	1250	5.8	1275	5.8	1300	5.8

HEXACHLOROETHANE SPIKE BAGS - Target Weight: 5.8 pounds

Date 10-16-13

Crew Personnel Mike Livingston, Don Shumway,
Steve Watson

Shift 1st

Scale zeroed

BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)
1301	5.8	1326	5.8	1351	5.8	1376	5.8
1302	5.8	1327	5.8	1352	5.8	1377	5.8
1303	5.8	1328	5.8	1353	5.8	1378	5.8
1304	5.8	1329	5.8	1354	5.8	1379	5.8
1305	5.8	1330	5.8	1355	5.8	1380	5.8
1306	5.8	1331	5.8	1356	5.8	1381	5.8
1307	5.8	1332	5.8	1357	5.8	1382	5.8
1308	5.8	1333	5.8	1358	5.8	1383	5.8
1309	5.8	1334	5.8	1359	5.8	1384	5.8
1310	5.8	1335	5.8	1360	5.8	1385	5.8
1311	5.8	1336	5.8	1361	5.8	1386	5.8
1312	5.8	1337	5.8	1362	5.8	1387	5.8
1313	5.8	1338	5.8	1363	5.8	1388	5.8
1314	5.8	1339	5.8	1364	5.8	1389	5.8
1315	5.8	1340	5.8	1365	5.8	1390	5.8
1316	5.8	1341	5.8	1366	5.8	1391	5.8
1317	5.8	1342	5.8	1367	5.8	1392	5.8
1318	5.8	1343	5.8	1368	5.8	1393	5.8
1319	5.8	1344	5.8	1369	5.8	1394	5.8
1320	5.8	1345	5.8	1370	5.8	1395	5.8
1321	5.8	1346	5.8	1371	5.8	1396	5.8
1322	5.8	1347	5.8	1372	5.8	1397	5.8
1323	5.8	1348	5.8	1373	5.8	1398	5.8
1324	5.8	1349	5.8	1374	5.8	1399	5.8
1325	5.8	1350	5.8	1375	5.8	1400	5.8

HEXACHLOROETHANE SPIKE BAGS - Target Weight: 5.8 pounds

Date 10-16-13

Crew Personnel Mike Livingston, Don Shuml, Steve Watson

Shift 1st

Scale zeroed

BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)
1401	5.8	1426	5.8	1451	5.8	1476	5.8
1402	5.8	1427	5.8	1452	5.8	1477	5.8
1403	5.8	1428	5.8	1453	5.8	1478	5.8
1404	5.8	1429	5.8	1454	5.8	1479	5.8
1405	5.8	1430	5.8	1455	5.8	1480	5.8
1406	5.8	1431	5.8	1456	5.8	1481	5.8
1407	5.8	1432	5.8	1457	5.8	1482	5.8
1408	5.8	1433	5.8	1458	5.8	1483	5.8
1409	5.8	1434	5.8	1459	5.8	1484	5.8
1410	5.8	1435	5.8	1460	5.8	1485	5.8
1411	5.8	1436	5.8	1461	5.8	1486	5.8
1412	5.8	1437	5.8	1462	5.8	1487	5.8
1413	5.8	1438	5.8	1463	5.8	1488	5.8
1414	5.8	1439	5.8	1464	5.8	1489	5.8
1415	5.8	1440	5.8	1465	5.8	1490	5.8
1416	5.8	1441	5.8	1466	5.8	1491	5.8
1417	5.8	1442	5.8	1467	5.8	1492	5.8
1418	5.8	1443	5.8	1468	5.8	1493	5.8
1419	5.8	1444	5.8	1469	5.8	1494	5.8
1420	5.8	1445	5.8	1470	5.8	1495	5.8
1421	5.8	1446	5.8	1471	5.8	1496	5.8
1422	5.8	1447	5.8	1472	5.8	1497	5.8
1423	5.8	1448	5.8	1473	5.8	1498	5.8
1424	5.8	1449	5.8	1474	5.8	1499	5.8
1425	5.8	1450	5.8	1475	5.8	1500	5.8

HEXACHLOROETHANE SPIKE BAGS - Target Weight: 5.8 pounds

Date 10-21-13

Crew Personnel Mike Livingston / Wayne Hunt
Steve Wingo

Shift 1ST

Scale zeroed

BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)
1501	5.8	1526	5.8	1551	5.8	1576	5.8
1502		1527		1552		1577	
1503		1528		1553		1578	
1504		1529		1554		1579	
1505		1530		1555		1580	
1506		1531		1556		1581	
1507		1532		1557		1582	
1508		1533		1558		1583	
1509		1534		1559		1584	
1510		1535		1560		1585	
1511		1536		1561		1586	
1512		1537		1562		1587	
1513		1538		1563		1588	
1514		1539		1564		1589	
1515		1540		1565		1590	
1516		1541		1566		1591	
1517		1542		1567		1592	
1518		1543		1568		1593	
1519		1544		1569		1594	
1520		1545		1570		1595	
1521		1546		1571		1596	
1522		1547		1572		1597	
1523		1548		1573		1598	
1524		1549		1574		1599	
1525		1550		1575		1600	

HEXACHLOROETHANE SPIKE BAGS - Target Weight: 5.8 pounds

Date _____

Crew Personnel _____

Shift _____

Scale zeroed _____

BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)
1601	5.8	1626	5.8	1651	5.8	1676	5.8
1602		1627		1652		1677	
1603		1628		1653		1678	
1604		1629		1654		1679	
1605		1630		1655		1680	
1606		1631		1656		1681	
1607		1632		1657		1682	
1608		1633		1658		1683	
1609		1634		1659		1684	
1610		1635		1660		1685	
1611		1636		1661		1686	
1612		1637		1662		1687	
1613		1638		1663		1688	
1614		1639		1664		1689	
1615		1640		1665		1690	
1616		1641		1666		1691	
1617		1642		1667		1692	
1618		1643		1668		1693	
1619		1644		1669		1694	
1620		1645		1670		1695	
1621		1646		1671		1696	
1622		1647		1672		1697	
1623		1648		1673		1698	
1624		1649		1674		1699	
1625		1650		1675		1700	

HEXACHLOROETHANE SPIKE BAGS - Target Weight: 5.8 pounds

Date 10-22-13

Crew Personnel MIKE LIVINGSTON / Wm Jernat
Shelley

Shift 15T

Scale zeroed ✓

MIKE LIVINGSTON *SLW*
Way D

10-22-13
 1ST

BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)	BAG #	WEIGHT (LBS)
1701	5.8	1726	5.8	1751	5.8	1776	5.8
1702		1727		1752		1777	
1703		1728		1753		1778	
1704		1729		1754		1779	
1705		1730		1755		1780	
1706		1731		1756		1781	
1707		1732		1757		1782	
1708		1733		1758		1783	
1709		1734		1759		1784	
1710		1735		1760		1785	
1711		1736		1761		1786	
1712		1737		1762		1787	
1713		1738		1763		1788	
1714		1739		1764		1789	
1715		1740		1765		1790	
1716		1741		1766		1791	
1717		1742		1767		1792	
1718		1743		1768		1793	
1719		1744		1769		1794	
1720		1745		1770		1795	
1721		1746		1771		1796	
1722		1747		1772		1797	
1723		1748		1773		1798	
1724		1749		1774		1799	
1725		1750		1775		1800	

Unit 2 Field Data Sheets for Lead,
Mercury, and Chlorine Spikes in
Containerized Solid Charges

TEST DATE: 10/8/13
 TEST UNIT: No. 2
 TEST START TIME:

U2 R1A

0:12

Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)	Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)
SolPtl-1	88-216				SolPtl-1	88-243			
	275					250			
	274					248			
	269					245			
	273					242			
	266					249			
	272					247			
	268					244			
	265					241			
	271					240			
	270					238			
	267					234			
	264					231			
	262					239			
	258					237			
	255					233			
	263					230			
	260					236			
	262A					235			
	257					232			
	254					229			
	261					228			
	259					227			
	256					226			
	253					225			
	252					224			
	251					223			
	246					222			

28

56

SAMPLES: ~~1247~~, ~~110090~~, Mercury vial ~~130~~

TEST DATE: 10-8-13
 TEST UNIT: NO. 2
 TEST START TIME:

Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)	Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)
SolPt1-1	88-221				SolPt1-1	88-184			
	220					192			
	219					177			
	218					183			
	217					192			
	166					189			
	165					190			
	175					191			
	171					186			
	163					185			SAMPLE
	164					188			
	168					187			
	167					181			
	179					182			
	172					197			
	176					202			
	162					204			
	161					201			
	201					193			SAMPLE
	180					203			
	169					198			
	158					200			
	159					195			1:00 PM END
	157					199			
	178					194			
	173								
	170								
	174								

SAMPLE
 11:50
 START OK

SAMPLE

SAMPLE
 84

TEST DATE: 10-8-13
 TEST UNIT: No. 2
 TEST START TIME:

U2R18

4:31

Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)	Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)
SolPta-2	02-1	1248	1010	127	SolPta-2	02-29	1220	1038	98
	2	1246	1012	138		30	1212	1039	133
	3	1250	1014	141		31	1225	1040	108
	4	1249	1011	126		32	1227	1042	107
	5	1242	1013	146		33	1205	1044	109
	6	1238	1015	147		34	1210	1041	118
	7	1241	1016	148		35	1214	1043	137
	8	1235	1018	104		36	1228	1045	139
	9	1245	1017	116		37	1247	1009	130
	10	1237	1019	110		38	1222	1046	143
	11	1240	1021	95		39	1215	1049	117
	12	1244	1020	115		40	1218	1047	144
	13	1233	1022	122		41	1213	1048	131
	14	1232	1025	142		42	1217	1050	128
	15	1229	1023	119		43	1221	1051	150
	16	1230	1027	111		44	1219	1054	57
	17	1206	1024	120		45	1223	1052	53
	18	1226	1028	134		46	1216	1053	89
	19	1236	1026	112		47	1204	1057	100
	20	1239	1029	102		48	1178	1056	54
	21	1234	1031	105		49	1157	1058	90
	22	1243	1030	106		50	1168	1055	101
	23	1231	1033	114		51	1167	1068	125
	24	1209	1032	103		52	1156	1060	121
	25	1211	1034	149		53	1176	1061	88
	26	1207	1035	145		54	1175	1059	132
	27	1224	1036	140		55	1174	1062	81
	28	1208	1037	113		56	1166	1063	92

START
15:40
SAMPLE

SAMPLE

SAMPLES: H-1129, L-1164, Mercury vial 91

TEST DATE: 10-8-13
 TEST UNIT: No. 2
 TEST START TIME:

Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)	Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)
PT Sol 2-2	02-57	1165	1064	59	PT Sol 2-2	02-85	1200	1104	63
	58	1177	1065	78		86	1150	1103	68
	59	1173	1066	76		87	1124	1101	135
	60	1171	1067	84		88	1127	1102	123
	61	1160	1128	77		89	1192	1099	70
	62	1172	1127	60		90	1138	1100	83
	63	1163	1126	94		91	1185	1098	65
AMPLE	64	1170	1125	56		92	1195	1096	136
	65	1169	1124	85		93	1143	1097	67
	66	1161	1121	52		94	1121	1095	29
	67	1153	1123	58		95	1198	1094	71
	68	1154	1122	93		96	1131	1093	38
	69	1147	1120	55		97	1135	1092	62
	70	1152	1119	82		98	1134	1091	69
	71	1141	1118	86		99	1193	1090	28
	72	1149	1117	99		100	1194	1089	35
	73	1140	1116	97		101	1142	1088	7
AMPLE	74	1151	1115	75		102	1187	1087	25
	75	1162	1114	124		103	1125	1086	5
	76	1158	1113	96		104	1203	1085	13
	77	1146	1112	87		105	1123	1084	26
	78	1139	1111	74		106	1129	1083	30
	79	1145	1110	80		107	1128	1082	33
	80	1159	1109	73		108	1110	1080	9
	81	1148	1108	64		109	1116	1079	48
	82	1144	1107	129		110	1118	1078	18
	83	1126	1106	66		111	1119	1077	17
AMPLE	84	1155	1105	72		112	1120	1075	6

SAMPLES: H-1081, L-1130, mercury vial 36

TEST DATE:
 TEST UNIT: No. 2
 TEST START TIME:

Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)	Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)		
SAMPLE	PAS12-2	02-113	1179	1076	22	PAS12-2	02-141	1132	726	11	SAMPLE
		114	1190	1074	20		142	1115	729	44	
		115	1191	1073	3		143	1181	732	43	
		116	1201	1071	61		144	1108	730	51	
		117	1196	1072	2		145	1117	728	19	
		118	1202	1070	34		146	1104	736	21	
		119	1197	1069	45		147	493	733	15	
		120	1184	707	16		148	492	735	37	
		121	1186	706	4		149	500	739	276	
SAMPLE		122	1199	708	50		150	491	731	257	
		123	1180	709	31		151	495	738	252	SAMPLE
		124	1105	711	24		152	496	734	264	
		125	1113	712	12		153	501	742	265	
		126	1122	710	27		154	488	740	268	
		127	1188	713	8		155	494	743	254	
		128	1106	714	23		156	487	737	253	
		129	1137	715	42		157	497	741	258	
		130	1136	716	47		158	498	746	261	
		131	1182	718	79		159	489	745	256	
SAMPLE		132	1133	717	14		160	481	747	260	SAMPLE
		133	1114	719	49		161	499	749	272	
		134	1112	720	41		162	476	751	263	
		135	1183	724	46		163	490	748	274	
		136	1189	721	1		164	486	752	249	
		137	1107	723	40		165	479	744	255	
		138	1111	722	39		166	483	750	251	
		139	1103	725	10		167	478	753	271	
		140	1109	727	32		168	477	755	262	

SAMPLES: H-756, L-480, mercury vial 279
 H-760, L-467, mercury vial 299

169 469 757 280 SAMPLE
 170 470 754 297 END
 78:55

TEST DATE: 10/9/13
 TEST UNIT: No. 2
 TEST START TIME:

U2R2A

Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)	Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)
RES01-1	88-194				RES01-1	88-432			
	199					430			
	208					431			
	211					423			
	215					429			
	206					428			
	214					420			
	205					427			
	207					425			
	212					426			
	213					421			
	210					424			
	209					420			
	196					419			
	454					414			
	456					412			
	455					418			
	452					413			
	448					410			
	446					417			
	450					411			
	449					409			
	451					416			
	444					415			
	453					408			
	447					404			
	433					405			
	445					407			

SAMPLE

SAMPLE

SAMPLE

9:45
 START
 SAMPLE

TEST DATE: 10-9-13
 TEST UNIT: No. 2
 TEST START TIME:

SAMPLE #

10:53

Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)	Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)
PTSD11-1	88-401				PTSD12-2	02-20	453	898	1138
	409					21	450	900	1118
	406					22	454	904	1078
	398					23	456	899	1133
	400					24	452	905	1137
	402					25	447	903	1124
	397					26	449	901	1079
	396					27	440	902	1127
						28	442	906	1077
PTSD12-2	02-1	484	886	1108		29	444	908	1122
	2	485	888	1111		30	461	907	1128
	3	482	891	1136		31	446	910	1071
	4	475	887	1105		32	451	909	1134
	5	474	890	1106		33	437	911	1126
	6	471	889	1139		34	425	912	1116
	7	473	892	1110		35	438	913	1132
	8	463	893	1130		36	433	915	1076
	9	468	894	1129		37	445	916	1125
	10	472	895	1114		38	432	914	1135
	11	460	763	1141		39	448	919	1131
	12	465	762	1117		40	431	917	1107
	13	458	761	1115		41	428	918	1121
	14	466	758	1123		42	443	921	1112
	15	464	759	1140		43	439	922	1097
	16	455	764	1113		44	434	923	1089
	17	457	896	1120		45	441	920	1083
	18	459	765	1109		46	430	925	1084
	19	462	897	1119		47	436	926	1080

12:00

SAMPLE

SAMPLE

SAMPLE

TEST DATE: 10/10/13
 TEST UNIT: No. 2
 TEST START TIME:

u2R3A

Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)	Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)
PA6611-1	88-156				PA6611-1	88-127			
	152					123			
	148					129			
	155					126			
	151					122			
	147					130			SAMPLE
	154					125			
	150					121			
	146					120			
	153					118			
	149					112			
	145					119			
	144					117			
	140					111			
	136					116			SAMPLE
	143					115			
	139					110			
	135					114			
	142					113			
	138					109			
	134					106			
	141					107			
	137					108			
	133					103			SAMPLE
	132					104			
	128					105			
	124					100			
	131					101			

9:15
 START
 SAMPLE

TEST DATE: 10-10-13
 TEST UNIT: No. 2
 TEST START TIME:

J

SAMPLE

10:23

12:00

1:38

12:30 STAF

SAMPLE

SAMPLE

SAMPLE

Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)	Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)
PTSd1-1	88-102				PTSd2-2	02-18	406	944	1057
	97					19	801	691	1063
	98					20	793	946	1054
	99					21	797	689	1096
	397					22	785	688	1094
	399					23	789	687	1087
	396					24	796	686	1073
	331					25	781	684	1104
	332					26	777	685	1082
	335					27	787	683	1053
						28	791	682	290
PTSd2-2	02-1	427	924	1058		29	782	681	281
	2	790	690	1065		30	778	680	289
	3	795	693	1056		31	779	679	294
	4	794	694	1051		32	780	678	288
	5	788	696	1093		33	784	677	278
	6	800	692	1060		34	775	676	284
	7	799	695	1061		35	770	675	285
	8	402	699	1074		36	771	674	298
	9	792	698	1068		37	768	673	291
	10	413	697	1064		38	786	672	283
	11	412	701	1100		39	776	670	270
	12	407	703	1052		40	773	671	292
	13	403	700	1062		41	772	669	295
	14	404	702	1070		42	783	668	296
	15	798	705	1055		43	764	666	273
	16	405	704	1067		44	774	665	282
	17	409	945	1059		45	765	664	293

SAMPLES : L-762, H-667, mercury vials 286, 275

0

TEST DATE: 10-10-13
 TEST UNIT: No. 2
 TEST START TIME:

Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)	Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)
PTSD 2-2	02-46	759	663	259	PTSD 2-2	02-74	752	874	232
	47	766	662	266		75	735	876	246
	48	763	661	287		76	750	872	220
	49	756	660	225		77	730	873	236
SAMPLE	50	757	659	244		78	734	871	221
	51	760	658	226		79	742	868	247
	52	754	657	237		80	732	867	207
	53	753	656	241		81	726	869	216
	54	758	655	208		82	727	866	227
	55	769	654	269		83	744	865	240
	56	748	653	213		84	729	864	217
	57	751	652	267		85	728	863	214
	58	747	651	219		86	724	862	206
	59	743	650	245		87	722	861	228
SAMPLE	60	749	649	212		88	720	860	277
	61	746	648	205		89	715	859	243
	62	740	647	210		90	721	858	215
	63	738	646	209		91	716	857	231
	64	767	885	204		92	718	856	235
	65	736	884	211		93	712	855	224
	66	761	883	203		94	723	854	218
	67	741	881	202		95	709	853	171
SAMPLE	68	737	880	248		96	719	852	175
	69	739	878	229		97	707	851	169
	70	731	877	239		98	706	850	181
	71	755	882	222		99	705	849	162
	72	733	879	242		100	708	848	187
	73	717	875	250		101	703	847	223

SAMPLE

SAMPLE

SAMPLE

SAMPLE

SAMPLE

SAMPLE

SAMPLES: H-870, L-745, mercury vials 230, 233

TEST DATE: 10-10-13
 TEST UNIT: No. 2
 TEST START TIME:



SAMPLE

SAMPLE

15/16

AMPLE

AMPLE

Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)	Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)
PTS012-2	02-102	725	846	201	PTS012-2	02-130	574	818	170
	103	714	845	195		131	593	817	152
	104	711	844	180		132	576	816	184
	105	710	843	234		133	551	814	185
	106	704	842	189		134	571	815	157
	107	713	841	161		135	580	813	179
	108	702	840	156		136	555	812	166
	109	594	839	200		137	579	810	178
	110	601	838	165		138	590	811	183
	111	600	837	191					
	112	598	836	173					
	113	592	835	197					
	114	587	834	193					
	115	588	831	151					
	116	596	833	159					
	117	591	832	160					
	118	586	830	154					
	119	599	829	153					
	120	573	828	182					
	121	584	827	155					
	122	585	826	192					
	123	595	825	198					
	124	578	824	199					
	125	589	823	166					
	126	575	822	194					
	127	583	821	188					
	128	577	820	172					
	129	597	819	164					

SAMPLES: H-809, L-569, mercury vials 163, 158
 H-808, L-581, mercury vials 853

TEST DATE: 10/30/13
 TEST UNIT: NO. 2
 TEST START TIME:

U2R5B

Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)	Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)
501P12-2	88-1	1434	1393	1342	501P12-2	88-29	1428	1424	1311
	2	1432	1396	1298		30	1435	1419	1328
	3	1444	1394	1309		31	1445	1423	1295
	4	1447	1400	1312		32	1410	1425	1319
	5	1429	1386	1332		33	1440	1428	1297
	6	1450	1399	1325		34	1431	1431	1292
	7	1421	1403	1330		35	1426	1432	1244
	8	1442	1405	1333		36	1423	1430	1322
	9	1446	1409	1300		37	1402	1439	1321
	10	1427	1402	1308		38	1415	1438	1310
	11	1437	1410	1302		39	1425	1440	1301
	12	1449	1404	1337		40	1409	1435	1293
	13	1441	1401	1315		41	1391	1434	1291
	14	1438	1406	1329		42	1414	1436	1318
	15	1439	1407	1340		43	1408	1429	1307
	16	1420	1408	1327		44	1422	1437	1276
	17	1436	1412	1339		45	1419	1427	1232
	18	1412	1411	1299		46	1405	1416	1316
	19	1417	1414	1304		47	1400	1317	1296
	20	1413	1413	1317		48	1396	1318	1320
	21	1448	1416	1338		49	1398	1320	1282
	22	1443	1415	1303		50	1389	1319	1306
	23	1430	1418	1334		51	1395	1312	1238
	24	1404	1422	1341		52	1397	1310	1269
	25	1424	1417	1326		53	1411	1313	1235
	26	1416	1421	1336		54	1406	1315	1264
	27	1418	1420	1305		55	1403	1311	1262
	28	1433	1426	1331		56	1384	1306	1290

SAMPLE

SAMPLE

SAMPLE

12:45
START
SAMPLE

SAMPLES: H-1433, L-1401, merc. vial 1294

TEST DATE: 10-30-13
 TEST UNIT: No. 2
 TEST START TIME:

J

SAMPLE

SAMPLE

SAMPLE

SAMPLE

SAMPLE

SAMPLE

Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)	Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)
SolPta-2	88-51	1382	1309	1247	SolPta-2	88-85	1372	1284	1277
	58	1399	1314	1314		86	1355	1279	1245
	59	1394	1308	1266		87	1363	1282	1257
	60	1381	1305	1313		88	1366	1261	1205
	61	1383	1298	1280		89	1369	1265	1242
	62	1393	1300	1287		90	1356	1278	1254
	63	1375	1299	1323		91	1351	1276	1288
	64	1386	1297	1289		92	1357	1275	1251
	65	1385	1304	1233		93	1352	1262	1260
	66	1379	1302	1281		94	1361	1266	1253
	67	1377	1301	1284		95	1362	1267	1239
	68	1390	1307	1324		96	1358	1271	1248
	69	1392	1303	1335		97	1365	1263	1188
	70	1380	1295	1270		98	1354	1274	1259
	71	1378	1288	1272		99	1759	1272	1191
	72	1368	1290	1268		100	1760	1264	1197
	73	1387	1292	1265		101	1761	1273	1185
	74	1376	1294	1278		102	1763	1269	1220
	75	1367	1287	1283		103	1757	1268	1256
	76	1407	1296	1271		104	1762	1270	1214
	77	1359	1293	1279		105	1766	1259	1206
	78	1360	1281	1274		106	1765	1258	1240
	79	1371	1291	1236		107	1775	1260	1194
	80	1370	1285	1263		108	1764	1257	1179
	81	1388	1286	1273		109	1780	1256	1221
	82	1364	1289	1286		110	1770	1255	1217
	83	1373	1283	1267		111	1778	1252	1211
	84	1374	1280	1275		112	1769	1251	1241

SAMPLES : H-1277, L-1353, merc. vial 1285

TEST DATE: 10-30-13
 TEST UNIT: No. 2
 TEST START TIME:

Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)	Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)
SdPt2-2	88-113	1779	1253	1237	SdPt2-2	88-141	1792	1223	1170
	114	1773	1254	1224		142	1477	1222	1216
	115	1772	1250	1208		143	1754	1221	1186
	116	1758	1249	1255		144	1495	1220	1210
	117	1789	1241	1261					
SAMPLE	118	1783	1242	1176					
	119	1785	1243	1204					
	120	1793	1244	1202					
	121	1782	1245	1226					
	122	1774	1246	1212					
	123	1771	1248	1203					
	124	1776	1247	1246					
	125	1777	1240	1258					
	126	1781	1239	1223					
SAMPLE	127	1767	1238	1207					
	128	1768	1237	1230					
	129	1798	1228	1219					
	130	1797	1229	1215					
	131	1765	1230	1250					
	132	1790	1231	1249					
	133	1795	1232	1222					
	134	1786	1233	1231					
	135	1500	1234	1195					
	136	1796	1235	1218					
SAMPLE	137	1794	1236	1213					
	138	1788	1227	1228					
	139	1787	1226	1225					
	140	1784	1225	1198					

SAMPLES: H-1224, L-1489, mer. vial 1209
 H-1219, L-1485, mer. vial 1153

Unit 2 Field Data Sheets for Chromic Acid Spiking

U2 R1B

BATCH # CH13F00382 595.35 Net lbs } 2 SS GAL
 BATCH # CH13F00382 595.35 Net } to start

CHROMIC ACID SPIKE FEED - Target Rate: pounds/hour

Date 10-8-13

Incinerator No. 2

Test Run 1 (1B)

Operator MADRISIAN

line out

Pressure

COMPUTER TIME	STOP WATCH TIME	SCALE (LBS)	CHROMIC FED (LBS)	PUMP SETTING	COMPUTER TIME	STOP WATCH TIME	SCALE (LBS)	CHROMIC FED (LBS)	PUMP SETTING
2:25 PM	0	1088		35	4:20 PM	1:45	1210	23	
	1	1083			4:15 PM	1:50	1188	22	
	2	1079			4:10	1:55	1171	17	
	3	1074			4:25	2:00	1148	23	
	4	1070			4:30	2:05	1127	21	
	5	1066			4:35	2:10	1104	23	33 psi
2:35 PM	10	-		1 HR →	4:40	2:15	1081	23	
	11	1037		34 psi	4:45	2:20	1062	19	
2:40 PM	15	1020			4:50 **	2:25	1037	25	
2:45 PM	20	998			4:55	2:30	1015	22	
2:50 PM	25	974			5:00	2:35	994	21	
2:55 PM	30	949	25		5:05	2:40	973	21	
3:00 PM	35	928	21		5:10	2:45	951	22	
3:05 PM	40	908	20		5:15	2:50	933	18	
3:10 PM	45	887	21		5:20	2:55	915	18	
3:16		867			5:25	3:00	889	26	
3:22 PM	60	1402			5:30	3:05	867	22	
3:30	65	1386			5:35	3:10	848	19	
3:35	1:10 (20)	1359	27	2 HR →	5:40	3:15	826	22	
3:40 PM	1:15	1338	21		5:45	3:20	801	25	
3:45 *	1:20	1319	19		5:50	3:25	779	22	
3:50	1:25	1295	24		5:55	3:30	756	23	
3:55 PM	1:30	1274	21		6:00	3:35	738	18	
4:00 PM	1:35	1255	19		6:05	3:40	717	21	
4:05 PM	1:40	1233	22		6:10	3:45	699	20	

2571w 1.5 hr

255

DDDD

net

595.35 lbs Net per SS GAL
 Density = 10.82 lb/GAL

* 1st splo taken ~ 3:42 pm
 * * 2nd splo taken ~ 4:47 pm

~ 3:26 AD DDD SS GAL chem
 595.35 lbs Net
 Batch CH13G00252

42 R33

CHROMIC ACID SPIKE FEED - Target Rate ²⁵⁰ pounds/hour

Date 10-10-13

Incinerator No. 2

Test Run 3 (36)

Operator MADDERMAN

cheat

ior

HL

COMPUTER TIME	STOP WATCH TIME	SCALE (LBS)	CHROMIC FED (LBS)	PUMP SETTING	COMPUTER TIME	STOP WATCH TIME	SCALE (LBS)	CHROMIC FED (LBS)	PUMP SETTING
11:50 AM	0	1741	—		1:50	2:00 HL	1189	21	
	1	1735	6		1:55	2:05	1168	21	
11:55 AM	5	1715	20		2:00	2:10	1141	27	
12:00 PM	10	1695	20		2:05	2:15	1111	30	
12:05 PM	15	1672	23		2:10	2:20	1098	13	
12:10 PM	20	1647	25		2:15	2:25	1074	24	
12:15 PM	25	1622	25		2:20	2:30	1045	29	
12:20	30	1602	20		2:25	2:35	1034	11	
12:25	35	1583	19	2 HL	2:30	2:40	1019	15	284 lbs
12:30 PM	40	1559	24		2:35	2:45	999	20	
12:35	45	*1534	25		2:40	2:50	979	20	
12:40	50	1511	23		2:45	2:55	961	18	
12:45	55	1486	25		2:50	3:00	938	24	
12:50	1:00 HL	1470	16		2:55	3:05	923	15	
12:55	1:05	1450	20		3:00	3:10	900	23	
1:00 PM	1:10	1433	17		3:05	3:15	877	23	
1:05	1:15	1407	26	METAL END	3:10	3:20	854	23	
1:10	1:20	1386	21		3:15	3:25	*** 830	24	
1:15	1:25	1366	20		3:20	3:30	807	23	
1:20	1:30	1345	21		3:25	3:35	787	20	
1:25	1:35	1324	21	3 HL	3:30	3:40	766	21	253 lbs
1:30	1:40	1303	21	256 lbs	3:35	3:45	742	24	
1:35	1:45	1251	52		3:40	3:50	717	25	END
1:40	1:50 **	** 1225	26						
1:45	1:55	1210	15						

Emptied CAST CR Drum into Pothole truck; same batch as yesterday, batch C# 13600385

- * CR sample @ 1:32 (2)
- ** 2nd CR sple @ 1:38 (2)
- *** 3rd sple @ 3:11 P.M.

1:45 PM - windy gusts
SCALE variations

Barker #3

U2 R5B

1/2

35%
CHROMIC ACID SPIKE FEED - Target Rate 250 pounds/hour

Date 10/30/13

Incinerator No. 2

Test Run 4 (5B)

Operator MADEIRA

COMPUTER TIME	STOP WATCH TIME	SCALE (LBS)	CHROMIC FED (LBS)	PUMP SETTING	COMPUTER TIME	STOP WATCH TIME	SCALE (LBS)	CHROMIC FED (LBS)	PUMP SETTING
12:09 PM	0	1576		44px	2:00 PM	1:51	1084	25	
12:10 PM	1 min	1563	13		2:05 PM	1:56 ⁴⁴	1057	27	
12:16 PM	2	1558	5		2:10 PM	2:01	1037	20	
12:14 PM	5	1542	16		2:15 PM	2:06	1020	17	
12:15 PM	6	1537	5		2:20 PM	2:11	1000	20	
12:20 PM	11	1520	17		2:25 PM	2:16	978	22	
12:25 PM	16	1500	20		2:30 PM	2:21	957	21	
12:30 PM	21	1481	19	RESET 2:32 PM?	2:35 PM	2:26	937	20	
12:35 PM	26	1451	30		2:40 PM	2:31	913	24	
12:40 PM	31	1429	22	2 HR	2:45 PM	2:36	894	19	296 lbs
12:45 PM	36	1409	20		2:50 PM	2:41	873	21	
12:50 PM	41 [#]	1396	23		2:55 PM	2:46	853	20	
12:55 PM	46	1361	25		3:00 PM	2:51	833	20	
1:00 PM	51	1340	21		3:05	2:56	811	22	
1:05 PM	56 min	1320	20		3:10	2:58	787	24	
1:10 PM	1:01	1299	21		3:15	3:06	765	22	
1:15 PM	1:06	1276	23		3:20	3:11	743	22	
1:20 PM	1:11	1256	20		3:25	3:16	724	19	
1:25 PM	1:16	1235	21		3:30	3:21	704	20	
1:30 PM	1:21	1213	22		3:35 PM	3:26	683	21	
1:35 PM	1:26	1193	20		3:40 PM	3:31	663	20	
1:40 PM	1:31	1171	22	3 HR	3:45	3:36	633	30	261 lbs
1:45 PM	1:36	1148	23	261 lbs	3:50	3:41	614	19	
1:50 PM	1:41	1128	20		3:55	3:46	594	20	
1:55 PM	1:46	1109	19		4:00 PM	3:51	569	25	

LINE OUT START

START of Run

END META @ 15:32

3 HR

ADD TWO DRUMS CHROMIC ACID NET 595.35 LBS EACH BATCH CH13600252

Windy - fluctuating

* 1st CR SPL @ 12:40 PM

* 2nd Sample @ 2:03 PM

*** LAST SAMPLE TAKEN @ 4:03 PM

BATTERY # 2

U2 R5B

2/2

35%
CHROMIC ACID SPIKE FEED - Target Rate: 250 pounds/hour

Date 10/30/13

Incinerator No. 2

Test Run 4

Operator MADESIAN

END OF RUN →

COMPUTER TIME	STOP WATCH TIME	SCALE (LBS)	CHROMIC FED (LBS)	PUMP SETTING	COMPUTER TIME	STOP WATCH TIME	SCALE (LBS)	CHROMIC FED (LBS)	PUMP SETTING
4:02 PM	3:53	561	8						
4:03 PM	3:54 ***	556	5						
4:04 PM	3:56								

*** LASTOR sample

Unit 3 Field Data Sheets for Lead,
Mercury, and Chlorine Spikes in
Containerized Solid Charges

TEST DATE: 10-15-13
 TEST UNIT: No. 3
 TEST START TIME:

U3R1A

Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)	Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)
PtSdl-1	88-335				PtSdl-1	88-309			
	329					304			
	334					301			
	330					300			
	327					308			
	328					303			
	324					299			
	325					298			
	333					297			
	326					296			
	315					295			
	314					294			
	313					293			
	322					290			
	323					292			
	321					291			
	318					289			
	319					288			
	317					287			
	316					286			
	320					284			
	312					285			
	311					282			
	307					283			
	305					281			
	302					280			
	310					279			
	306					278			

1:15
 SAMPLE

SAMPLE

TEST DATE: 10-15-13

TEST UNIT: No. 3

TEST START TIME:

Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)	Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)
PrtSol1-1	88-277	54				88-361			
	276					360			
	338					371			
	337					370			
	336								
	339								
	340				PrtSol2-2	02-1	541	132	196
SAMPLE	341					2	539	118	925
	343					3	515	139	917
	342					4	525	108	924
	344					5	526	102	904
	346					6	540	99	914
	347					7	523	115	920
	345					8	521	109	907
	359					9	524	110	923
	358					10	518	97	167
	357					11	517	112	177
	356					12	522	92	898
SAMPLE	354					13	514	105	861
	348					14	513	94	890
	349					15	510	136	887
	350					16	511	95	190
	353					17	508	91	891
	355					18	502	100	899
	352					19	512	96	856
	351					20	506	90	875
SAMPLE	367					21	503	236	858
	368					22	505	235	888

14325 END

SAMPLE

TEST DATE: 10-16-13
 TEST UNIT: No. 3
 TEST START TIME:

u3&2A

10:45

Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)	Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)
PtSoll-1	88-52				PtSoll-1	88-32			
	51					31			
	56					30			
	50					29			
	49					25			
	55					26			
	60					27			
	59					28			
	54					13			
	58					14			
	53					15			
	57					16			
	37					20			
	38					19			
	39					18			
	40					17			
	44					24			
	43					23			
	42					22			
	41					21			
	48					1			
	47					2			
	46					3			
	45					4			
	36					5			
	35					6			
	34					7			
	33					8			

SAMPLE

SAMPLE

SAMPLE

11:15
 →
 SAMPLE

TEST DATE: 10-16-13
 TEST UNIT: No. 3
 TEST START TIME:

Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)	Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)	
PatSol1-1	88-12				PatSol2-2	02-19	683	1153	439	
	11					20	690	1155	401	
	10					21	672	1154	425	
	9					22	671	1157	412	
SAMPLE	370					23	670	1158	403	
	365					24	684	1156	420	
	363					25	667	1159	411	
12:25	362					26	682	1162	409	
	361					27	686	1160	419	
						28	660	1163	440	
3:25	PatSol2-2	02-1	701	1134	784		29	689	1161	415
		2	700	1137	772		30	664	1165	417
		3	697	1139	765		31	685	1164	408
		4	696	1141	779		32	668	1166	413
		5	693	1136	770		33	680	1168	432
		6	698	1138	764		34	681	1167	405
		7	692	1140	792		35	669	1169	402
		8	695	1142	759		36	677	1172	407
		9	691	1143	445		37	657	1170	410
		10	688	1145	775		38	679	1171	423
		11	678	1144	820		39	665	1173	404
		12	675	1146	779		40	656	1175	418
		13	687	1147	781		41	661	1176	424
		14	694	1148	755		42	654	1177	449
		15	673	1149	753		43	649	1178	447
		16	674	1151	450		44	658	1180	446
		17	699	1150	782		45	655	1179	448
		18	676	1152	422		46	660	1183	436

SAMPLES: mercury vial 421, H-1174, L-663

TEST DATE: 10-16-13
 TEST UNIT: No. 3
 TEST START TIME:

SAMPLE

SAMPLE

SAMPLE

SAMPLE

SAMPLE

SAMPLE

Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)	Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)
PtSol2-2	02-47	651	1184	431	PtSol2-2	02-75	622	409	372
	48	648	1181	416		76	617	422	375
	49	652	1182	429		77	627	416	360
	50	647	1185	444		78	616	414	363
	51	662	1186	442		79	624	406	369
	52	653	1188	441		80	631	397	354
	53	650	1187	414		81	623	418	379
	54	659	1189	443		82	620	400	382
	55	646	1191	406		83	618	417	359
	56	640	1192	437		84	614	396	374
	57	638	1190	435		85	615	394	400
	58	641	1193	438		86	612	408	396
	59	639	1196	434		87	608	402	399
	60	642	1194	428		88	611	395	395
	61	636	1195	427		89	604	398	371
	62	637	1197	426		90	619	410	373
	63	633	1198	433		91	613	385	357
	64	635	1199	430		92	602	393	387
	65	634	1200	362		93	609	405	385
	66	644	412	366		94	605	390	381
	67	632	421	365		95	607	377	377
	68	628	411	356		96	610	384	388
	69	630	407	361		97	603	404	378
	70	625	403	351		98	606	391	380
	71	626	419	367		99	589	380	386
	72	621	413	370		100	980	381	390
	73	645	401	352		101	981	386	398
	74	643	420	358		102	974	388	391

SAMPLES : L-629, H-415, mercury vial 364

TEST DATE: 10-16-13
 TEST UNIT: No. 3
 TEST START TIME:

Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)	Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)
PtSola-2	02-109	972	382	392	PtSola-2	02-131	945	355	348
	104	965	378	389		132	943	356	303
	105	963	392	394		133	940	359	349
	106	962	399	393		134	938	349	324
	107	976	379	384		135	935	352	319
	108	961	387	383		136	944	350	315
	109	956	376	397		137	948	354	312
SAMPLE	110	967	389	355		138	954	351	306
	111	955	383	353		139	939	301	326
	112	952	373	368		140	942	299	305
	113	966	374	376		141	931	298	311
	114	994	372	323		142	929	297	310
	115	978	371	314		143	941	294	317
	116	970	369	307		144	937	293	333
SAMPLE	117	969	375	332		145	933	296	322
	118	973	363	329		146	930	295	321
	119	968	368	344		147	927	291	313
	120	964	367	320					
	121	959	366	302					
	122	957	365	301					
	123	953	370	308					
	124	951	362	328					
	125	958	364	343					
	126	960	360	350					
SAMPLE	127	949	357	330					
	128	950	361	337					
	129	946	358	334					
	130	947	353	346					

SAMPLES: mercury vial 304, H-300, L-936
 mercury vial 318, H-292, L-924

TEST DATE: 10-17-13
 TEST UNIT: No. 3
 TEST START TIME:

43R3A

Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)	Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)
PT-5011-1	88-364				PT-5011-1	88-2			
	366					3			
	369					4			
	380					5			
	379					6			
	381					7			SAMPLE
	382					8			
	378					9			
	373					10			
	383					11			
	376					12			
	375					13			
	372					14			SAMPLE
	374					15			
	377					16			
	395					17			
	391					18			
	388					19			
	384					20			
	386					21			
	394					22			
	390					23			
	389					24			SAMPLE
	392					25			
	393					26			
	385					27			
	387					28			
	1					29			

9:50
 SAMPLE

SAMPLE

SAMPLE

SAMPLE

TEST DATE: 10-17-13
 TEST UNIT: No. 3
 TEST START TIME:

Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)	Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)
PHS/1-1	88-30	928	348	341	PHS/2-2	02-22	907	322	564
	31					23	908	324	525
	32					24	909	329	553
	33					25	904	331	586
	34					26	918	316	588
						27	917	330	580
						28	292	320	327
PHS/2-2	02-1	928	348	341		29	298	317	569
	2	923	342	335		30	300	315	568
	3	921	343	340		31	294	327	562
	4	925	345	336		32	299	319	572
	5	934	347	342		33	296	312	566
	6	915	344	309		34	293	318	557
	7	920	341	347		35	297	310	594
	8	926	339	338		36	291	309	331
	9	932	346	339		37	288	308	573
	10	919	336	345		38	281	321	595
	11	916	340	598		39	276	314	570
	12	911	338	575		40	279	313	567
	13	910	333	599		41	289	302	551
	14	914	334	316		42	290	311	556
	15	922	332	592		43	283	303	558
	16	912	337	587		44	274	304	561
	17	906	328	554		45	285	305	571
	18	913	335	560		46	295	306	596
	19	905	326	591		47	282	183	574
	20	902	325	563		48	287	182	589
	21	903	323	552		49	284	176	600

SAMPLE

SAMPLE

SAMPLE

SAMPLE

13R3B

12:30

SAMPLES : H-307, L-286, mercury vial 585

TEST DATE: 10-17-13
 TEST UNIT: No. 3
 TEST START TIME:

SAMPLE

SAMPLE

SAMPLE

SAMPLE

SAMPLE

SAMPLE

Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)	Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)
RTSD 2-2	02-50	265	180	582	RTSD 2-2	02-78	241	158	532
	51	272	175	583		79	278	159	578
	52	267	181	590		80	249	152	541
	53	275	179	597		81	255	151	529
	54	269	177	593		82	251	145	527
	55	257	178	584		83	247	143	547
	56	273	174	525		84	237	140	520
	57	270	171	539		85	254	149	504
	58	268	173	519		86	239	148	518
	59	259	170	555		87	230	147	545
	60	261	172	565		88	234	142	534
	61	271	167	576		89	250	141	524
	62	260	161	546		90	248	290	542
	63	280	162	544		91	258	289	515
	64	277	168	530		92	220	288	512
	65	264	163	535		93	228	287	536
	66	262	169	537		94	216	286	550
	67	252	166	543		95	227	285	526
	68	253	165	517		96	238	284	514
	69	263	156	549		97	231	283	579
	70	256	164	533		98	207	282	540
	71	246	160	548		99	224	281	503
	72	244	153	538		100	212	280	516
	73	266	157	528		101	202	279	508
	74	243	150	522		102	210	278	507
	75	233	146	581		103	204	277	511
	76	236	154	577		104	225	276	500
	77	240	155	513		105	242	275	521

SAMPLES : H-144, L-235, mercury vial 559

TEST DATE: 10-17-13
 TEST UNIT: No. 3
 TEST START TIME:



SAMPLE

SAMPLE

SAMPLE

SAMPLE

SAMPLE

15:55

Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)	Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)
PtSola-2	02-106	245	274	502	PtSola-2	02-134	90	249	506
	107	219	273	523		135	89	246	478
	108	218	272	492		136	71	247	495
	109	232	271	531		137	87	242	473
	110	211	270	498		138	84	245	474
	111	229	269	480		139	82	241	488
	112	226	267	494		140	80	560	466
	113	213	268	497		141	95	548	487
	114	214	264	501		142	86	557	479
	115	215	266	509		143	88	553	489
	116	222	261	482		144	81	551	483
	117	206	262	490		145	75	577	484
	118	221	265	491		146	77	575	460
	119	201	260	486		147	74	552	461
	120	223	259	477		148	85	42	484
	121	217	263	456		149	73	555	469
	122	205	257	455					
	123	208	255	453					
	124	209	258	452					
	125	203	253	505					
	126	98	252	472					
	127	96	256	468					
	128	93	254	499					
	129	94	243	463					
	130	100	244	464					
	131	91	248	457					
	132	92	250	496					
	133	97	251	493					

SAMPLES: L-99, H-568, mercury vial 458
 L-76, H-559, mercury vial 462
 L-72, H-569, mercury vial 481, 713, 467

TEST DATE: 10-18-13
 TEST UNIT: No. 3
 TEST START TIME:

u3R4B

Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)	Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)
Pt5012-2	02-1	54	545	451	Pt5012-2	02-29	47	76	735
	2	83	554	471		30	41	37	727
	3	70	546	459		31	43	28	730
	4	69	549	510		32	35	39	733
	5	78	562	470		33	42	72	704
	6	66	550	475		34	40	576	701
	7	68	574	465		35	53	30	739
	8	65	566	485		36	38	27	732
	9	64	74	476		37	39	71	731
	10	60	572	743		38	36	29	744
	11	63	558	721		39	34	33	740
	12	59	556	734		40	37	26	729
	13	56	564	736		41	33	31	708
	14	58	573	711		42	25	64	702
	15	57	567	747		43	31	67	750
	16	62	35	748		44	16	69	717
	17	50	73	723		45	24	70	714
	18	48	570	712		46	26	65	705
	19	45	40	746		47	30	68	707
	20	79	565	742		48	27	473	745
	21	55	36	741		49	29	472	716
	22	67	34	738		50	28	445	720
	23	52	563	728		51	18	475	710
	24	61	32	726		52	12	481	718
	25	46	571	706		53	19	474	709
	26	51	38	738		54	22	476	725
	27	44	561	719		55	15	477	724
	28	49	41	749		56	10	478	715

SAMPLE

SAMPLE

SAMPLE

9:35

SAMPLE

SAMPLES : L-32, H-66, mercury vial 703

TEST DATE: 10-18-13
 TEST UNIT: NO. 3
 TEST START TIME:

Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)	Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)
PT5012-2	02-57	23	467	722	PT5012-2	88-85	375	454	693
	58	6	479	683		86	388	440	694
	59	8	480	684		87	386	446	687
	60	3	468	681		88	384	442	689
	61	4	464	627		89	396	451	635
	62	20	471	686		90	383	437	682
	63	14	470	678		91	380	452	636
	64	13	450	691		92	387	441	630
	65	21	447	692		93	379	432	645
	66	5	482	698		94	378	438	688
	67	17	483	697		95	381	436	637
	68	7	458	699		96	371	439	676
	69	11	466	679		97	369	444	663
	70	9	459	695		98	393	435	643
	71	2	460	690		99	374	433	629
	72	1	461	632		100	368	424	638
	73	401	463	685		101	367	429	639
	74	390	462	700		102	366	425	646
	75	399	456	628		103	360	427	647
	76	398	448	696		104	377	426	670
	77	397	469	677		105	370	431	633
	78	392	453	631		106	373	423	640
	79	395	457	626		107	359	428	649
	80	391	449	680		108	361	54	641
	88-81	389	434	642		109	363	46	617
	82	394	443	650		110	376	44	665
	83	385	465	634		111	362	55	672
	84	400	455	648		112	355	51	625

SAMPLE

SAMPLE

SAMPLE

SAMPLE

SAMPLE

SAMPLE

SAMPLES : L-382, H-430, mercury vial 644

TEST DATE: 10-18-13
 TEST UNIT: No. 3
 TEST START TIME:

Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)	Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)
PtSol2-2	88-113	358	53	623	PtSol2-2	88-141	332	16	662
	114	365	62	607		142	327	20	618
	115	356	24	652		143	320	12	608
	116	351	57	660		144	318	13	615
	117	364	60	800		145	319	6	664
	118	372	58	878		146	313	19	604
	119	354	56	758		147	321	80	612
	120	353	59	841		148	330	2	602
MPLE	121	352	50	655					
	122	344	63	699					
	123	347	47	656					
	124	350	61	622					
	125	346	49	611					
	126	343	14	606					
	127	349	48	651					
	128	340	43	668					
MPLE	129	357	52	674					
	130	345	16	666					
	131	342	25	667					
	132	341	45	654					
	133	336	22	621					
	134	338	17	616					
	135	337	9	673					
	136	339	23	671					
	137	335	8	601					
	138	333	21	620					
MPLE	139	334	11	614					
	140	331	15	609					

SAMPLE

SAMPLES : L-348, H-75, mercury vial 658
 L-316, H-2, mercury vial 659

Unit 3 Field Data Sheets for Chromic Acid Spiking

U3 R2B

CHROMIC ACID SPIKE FEED - Target Rate: ^{35²⁰} 2²⁰ pounds/hour

Date 10-16-13

Incinerator No. 3

Test Run 2 (20)

Operator MADISON

last met out 3:30 P.M.

S. O.R. 1:40

1:40

COMPUTER TIME	STOP WATCH TIME	SCALE (LBS)	CHROMIC FED (LBS)	PUMP SETTING	COMPUTER TIME	STOP WATCH TIME	SCALE (LBS)	CHROMIC FED (LBS)	PUMP SETTING
1:25 P.M.	0	1713		34 psi	3:20 P.M.	1:55	1223	21	34 psi
1:27 P.M.	2	1709	4		3:25 P.M.	2:00	1202	21	
1:29 P.M.	4	1702	7		3:30 P.M.	2:05	1181	21	
1:31 P.M.	6	1691	11		3:35 P.M.	2:10	1160	21	
1:35	10	1671	20		3:40 P.M.	2:15	1139	21	
1:40	15	1646	25		3:45 P.M.	2:20	1118	21	
1:45	20	1626	20		3:50 P.M.	2:25	1096	22	
1:50	25	1605	21		3:55 P.M.	2:30	1072	24	
1:55 P.M.	30	1585	20	2 nd hour →	4:00 P.M.	2:35	1051	21	256 lbs
2:00 P.M.	35	1565	20		4:05 P.M.	2:40	1029	22	
2:05 P.M.	40*	1542	23		4:10 P.M.	2:45	1006	23	
2:10 P.M.	45	1520	22		4:15 P.M.	2:50	982	24	
2:15 P.M.	50	1491	29		4:20 P.M.	2:55	960	22	
2:20 P.M.	55	1473	1.8		4:25 P.M.	3:00	938	22	
2:25	1:00 (60)	1456	1.7		4:30	3:05	918	20	
2:30	1:05	1433	23		4:35	3:10	898	20	
2:35	1:10	1410	23		4:40	3:15	877	21	
2:40	1:15	1390	20		4:45	3:20	857	20	
2:45	1:20	1370	20	METALS END →	4:50	3:25***	833	24	
2:50	1:25	1349	21		4:55	3:30	811	22	
2:55	1:30	1328	21	3 rd hour →	5:00	3:35	788	23	263 lbs
3:00	1:35	1307	21	258 lbs	5:05	3:40	768	20	
3:05	1:40*	1286	21		5:10	3:45	748	20	
3:10	1:45	1264	22		5:15	3:50	727	21	
3:15 P.M.	1:50	1244	20	EOR →	5:20	3:55	705	22	

ADDED two DRUMS chromic acid BATCH No's CH 13E00343 (BOTH DRUMS)
Net 695 lbs each.

BATTERY # 2 some wind

*** 3rd CR sple taken 4:48 PM

**** 4th CR sple taken @ 5:25 PM

* 1st CR sple @ 2:01 P.M.
** 2nd CR sple taken @ 3:03 PM

U3 R35

1/2

35%
CHROMIC ACID SPIKE FEED - Target Rate ²⁵⁰ pounds/hour

Date 10/13

Incinerator No. 3

Test Run 3 (30)

Operator MADEIAN

1st ME AT START

S.O.P. →

hour →

COMPUTER TIME	STOP WATCH TIME	SCALE (LBS)	CHROMIC FED (LBS)	PUMP SETTING	COMPUTER TIME	STOP WATCH TIME	SCALE (LBS)	CHROMIC FED (LBS)	PUMP SETTING
11:55 AM	0	1536		34750	1:50 PM	1:55	1041	22	
11:57 AM	2	1525	11		1:55 PM	2:00	1017	24	
11:59 AM	4	1520	5		2:00 PM	2:05	996	21	
12:00 Noon	5	1516	4		2:05 PM	2:10	975	21	
12:05 PM	10	1487	29		2:10 PM	2:15	953	22	
12:10 PM	15	1466	21		2:15 PM	2:20	931	22	
12:15	20	1447	19		2:20 PM	2:25	910	21	
12:20	25	1424	23		2:25 PM	2:30	889	21	
12:25	30	1401	23	2 nd Hour →	2:30 PM	2:35	868	21	256 lbs
12:30 PM	35	1380	21		2:35 PM	2:40	846	22	
12:35 PM	40 *	1359	21		2:40 PM	2:45	824	22	
12:40 PM	45	1338	21		2:45 PM	2:50	802	22	
12:45 P.M.	50	1309	29		2:50 PM	2:55	780	22	
12:50 P.M.	55	1288	21		2:55 PM	3:00	758	22	
12:55 P.M.	1:00 (60)	1267	21		3:00 PM	3:05	737	21	131
1:00 PM	1:05	1247	20		3:05 PM	3:10	715	22	
1:05 P.M.	1:10	1227	20		3:10 PM	3:15	694	21	
1:10 P.M.	1:15	1205	22		3:15 PM	3:20	673	21	
1:15 P.M.	1:20	1184	21		3:20 PM	3:25 ^{XX}	648	25	TAKING samples
1:20 PM	1:25	1164	20	METALS END →	3:25 PM	3:30	630	18	
1:25 PM	1:30	1145	19	3 rd Hour →	3:30 PM	3:35	609	21	259 lbs
1:30 P.M.	1:35	1124	21	256 lbs	3:35 PM	3:40	589	20	
1:35 PM	1:40	1105	19		3:40 PM	3:45	568	21	
1:40	1:45 ^{XX}	1083	22		3:45 PM	3:50	547	21	
1:45	1:50	1063	20		3:50 PM	3:55	526	21	

Put in 1 Drum CR plus partial of another Drum @ 200 lbs ± BATH CH 13E00345
BATH DRUMS SAME BATCH AS YESTER DAY (10/13) 595.35 NET LB PER DRUM

* 1st CR spte taken 12:31 P.M. (1)

XX 2nd CR spte taken @ 1:36 P.M. (1)

2:40 PM Windy

XXXX 4th spte taken ~ 3:57 PM

Battery # 2

B-134

43 R4B

1/2

35%
CHROMIC ACID SPIKE FEED - Target Rate 20 pounds/hour

Date 10-18-13

Incinerator No. 3

Test Run 1# (4B)
* Repeat Run 11/10/13 D/F, Hg, Hcl, CR, Pb

Operator MATOESIAN

CR START

START LINE OUT

S.O.P. START 7:35A

COMPUTER TIME	STOP WATCH TIME	SCALE (LBS)	CHROMIC FED (LBS)	PUMP SETTING	COMPUTER TIME	STOP WATCH TIME	SCALE (LBS)	CHROMIC FED (LBS)	PUMP SETTING
8:55 AM	0	1456		34%	10:25 AM	1:30	1063	21	34%
8:57 AM	1 min	1447	9		10:30 AM	1:35	1040	23	
8:59 AM	2	1441	6	1 HR	10:35	1:40	1019	21	255 lb
9:00 AM	5	1424	17		10:40	1:45	999	20	
9:05 AM	10	1404	20		10:45	1:50	979	20	
9:10 A.M.	15	1381	23		10:50	1:55	956	23	
9:15 A.M.	20	1358	23		10:55	2:00	930	26	
9:20 AM	25	1337	21		11:00	2:05	907	23	
9:25 A.M.	30	1317	20		11:05	2:10	886	21	
9:30 A.M.	35	1295	22		11:10	2:15	865	21	
9:31 A.M.	36	1291	4		11:15	2:20	843	22	
9:32 A.M.	37	1287	4		11:20	2:25	821	22	
9:33 A.M.	38	1282	5		11:25	2:30	800	21	
9:34 A.M.	39	1279	3		11:30	2:35	782	18	
9:35 A.M.	40	1274	5	2nd HR	11:35	2:40	762	20	257 lb
9:36 A.M.	41	1270	4		11:40	2:45	743	19	
9:40 AM	45	1252	18		11:45 AM	2:50	725	18	
9:45 A.M.	50	1231	21		11:50 AM	2:55	702	23	
9:50 A.M.	55 min	1208	23		11:55 AM	3:00	680	22	
9:55 A.M.	1:00 HR	1186	22		12:00 PM	3:05	657	23	
10:00 A.M.	1:05	1165	21		12:05 PM	3:10	635	22	
10:05 AM	1:10	1145	20		12:10 PM	3:15	614	21	
10:10 A.M.	1:15	1125	20		12:15 PM	3:20	593	21	
10:15 A.M.	1:20	1103	22	METALS END	12:20 PM	3:25	572	21	
10:20 AM	1:25	1084	19		12:25 PM	3:30	551	21	

FILLED POTHC TANK w/ 11 1/2 DRUMS REMAINING CHROMIC ACID BATCH CH13E00343
EACH DRUM CONTAINED 595 LBS NET WEIGHT FULL.

BATTERY # 2
WINDY

* 1st CR sple taken ~ 9:36 A.M.

*** 3rd sple @ 12:19 PM

** 2nd CR sple taken ~

Unit 4 Field Data Sheets for Lead,
Mercury, and Chlorine Spikes in
Containerized Solid Charges

TEST DATE: 10-23-13
 TEST UNIT: No. 4
 TEST START TIME:

U4R1A

Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)	Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)
PtS011-1	1				PtS011-1	29			
	2					30			
	3					31			
	4					32			
	5					34			
	6					35			
	7					36			
	8					37			SAMPLE
	9					38			
	10					39			
	11					40			
	12					41			
	13					42			
	14					41			
	15					42			
	16					43			
	17					44			
	18					45			
	19					46			
	20					47			SAMPLE
	21					48			
	22					49			
	23					50			
	24					51			
	25					52			
	26					53			
	27					54			
	28					55			

→

09:30

SAMPLE

TEST DATE: 10-23-13
 TEST UNIT: No. 4
 TEST START TIME:

Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)	Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)
PtScll-1	56				PtScll-3	16	1557	1771	2561
	57					17	1565	1773	2580
	58					18	1551	1785	2564
	59					19	1555	1782	2572
	60					20	1586	1792	2573
	61					21	1557	1781	2561
	62					22	1584	1777	2567
	63					23	1582	1772	2578
	64					24	1564	1789	2576
	65					25	1570	1791	2579
	66					26	1574	1774	2571
	67					27	1562	1784	2552
	68					28	1583	1786	2570
PtScll-3	1	1552	1763	2549		29	1581	1776	2560
	2	1561	1769	2551		30	1572	1780	2575
	3	1559	1770	2558		31	1593	1779	2574
	4	1553	1764	2568		32	1585	1775	2553
	5	1556	1766	2566		33	1589	1787	2506
	6	1560	1758	2550		34	1588	1783	2500
	7	1554	1757	2555		35	1605	1778	2524
	8	1558	1760	2564		36	1599	1800	2507
	9	1573	1761	2559		37	1595	1798	2512
	10	1569	1759	2563		38	1568	1799	2509
	11	1563	1762	2557		39	1571	1796	2510
	12	1580	1765	2556		40	1587	1795	2514
	13	1575	1767	2565		41	1597	1797	2519
	14	1566	1788	2562		42	1579	1794	2521
	15	1567	1768	2577		43	1606	1793	2503

SAMPLE

SAMPLE

10/22

2/15

12:36

SAMPLE

SAMPLE

SAMPLES - H-1790, L-1594, mercury vials 2528, 2502

TEST DATE: 10-23-13
 TEST UNIT: No. 4
 TEST START TIME:

Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)	Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)
SolP3-3	44	1590	1710	2533	SolP3-3	72	1632	1719	2541
	45	1610	1695	2538		73	1621	1720	2543
	46	1576	1696	2536		74	1616	1722	2529
	47	1578	1714	2526		75	1620	1727	2516
	48	1592	1712	2501		76	1617	1732	2523
	49	1599	1713	2545		77	1623	1725	2511
	50	1607	1693	2532		78	1619	1723	2513
	51	1596	1697	2499		79	1643	1729	2522
	52	1600	1698	2505		80	1631	1735	2518
	53	1598	1694	2537		81	1627	1733	2479
	54	1604	1703	2546		82	1653	1731	2445
	55	1601	1708	2544		83	1645	1730	2439
	56	1603	1716	2548		84	1635	1743	2475
	57	1608	1707	2534		85	1622	1736	2474
	58	1609	1699	2530		86	1638	1740	2442
	59	1611	1706	2540		87	1640	1737	2477
	60	1614	1700	2542		88	1633	1738	2484
	61	1613	1705	2539		89	1636	1742	2443
	62	1612	1702	2547		90	1629	1734	2444
	63	1602	1709	2531		91	1639	1749	2447
	64	1618	1704	2517		92	1644	1748	2491
	65	1615	1715	2515		93	1648	1739	2492
	66	1616	1724	2508		94	1642	1741	2425
	67	1624	1711	2520		95	1637	1750	2435
	68	1628	1721	2525		96	1649	1744	2488
	69	1625	1726	2527		97	1654	1746	2427
	70	1630	1717	2535		98	1660	1753	2429
	71	1626	1718	2504		99	1634	1755	2430

SAMPLE

SAMPLE

SAMPLE

SAMPLE

SAMPLES: Cl - H - 1728
 Pb - L - 1641
 Hg - 2441

TEST DATE: 10-23-13
 TEST UNIT: No. 4
 TEST START TIME:

Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)	Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)
SRPT3-3	100	1647	1752	2438	SRPT3-3	128	1700	1653	2480
	101	1657	1754	2436		129	1678	1655	2490
	102	1656	1751	2428		130	1689	1645	2459
	103	1651	1745	2448		131	1687	1656	2451
	104	1667	1756	2496		132	1682	1660	2450
	105	1650	1747	2437		133	1686	1654	2321
	106	1664	1629	2483		134	1672	1659	2462
AMPLE	107	1652	1631	2446		135	1701	1651	2461
	108	1658	1630	2434		136	1663	1677	2317
	109	1666	1632	2481		137	1674	1658	2309
	110	1665	1636	2440		138	1671	1657	2456
	111	1670	1634	2278		139	1691	1662	2319
	112	1655	1638	2495		140	1690	1671	2449
	113	1659	1633	2485		141	1677	1661	2468
	114	1662	1635	2426		142	1695	1670	2464
	115	1675	1639	2432		143	1685	1682	2470
	116	1661	1637	2482		144	1703	1666	2454
	117	1668	1640	2431		145	1697	1667	2466
SAMPLE	118	1679	1643	2476		146	1693	1676	2458
	119	1673	1650	2433		147	1706	1673	2323
	120	1676	1642	2494		148	1694	1679	2315
	121	1669	1648	2497		149	1713	1669	2312
	122	1698	1644	2424					
	123	1699	1646	2487					
	124	1692	1647	2489					
	125	1680	1652	2486					
SAMPLE	126	1688	1641	2498					
	127	1681	1649	2493					

SAMPLES : H-1672, L-1684, mercury vial 2467
 H-1675, L-1713, mercury vial 2469

TEST DATE: 10-24-13
 TEST UNIT: No. 4
 TEST START TIME:

SAMPLE

SAMPLE

24R23

12:36

SAMPLE

Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)	Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)
SRH-1	57				Sd Pt3-3	18	1732	1506	2313
	58					19	1719	1686	2463
	59					20	1715	1664	2472
	60					21	1716	1507	2473
	61					22	1721	1684	2318
	62					23	1717	1505	2311
	63					24	1725	1510	2471
	64					25	1724	1508	2305
	65					26	1735	1509	2300
	66					27	1733	1511	2452
	67					28	1741	1512	2453
Sd Pt3-3	1	1683	1690	2307		29	1738	1513	2460
	2	1696	1692	2316		30	1729	1515	2326
	3	1705	1683	2299		31	1730	1514	2334
	4	1704	1663	2304		32	1728	1503	2332
	5	1712	1674	2308		33	1737	1504	2413
	6	1709	1678	2465		34	1744	1516	2417
	7	1718	1685	2302		35	1743	1560	2342
	8	1707	1681	2303		36	1749	1517	2423
	9	1714	1689	2312		37	1727	1502	2327
	10	1711	1687	2320		38	1736	1563	2331
	11	1708	1691	2316		39	1748	1561	2341
	12	1722	1688	2306		40	1747	1564	2348
	13	1710	1668	2322		41	1742	1529	2333
	14	1702	1665	2301		42	1734	1531	2337
	15	1720	1701	2314		43	1731	1532	2418
	16	1723	1680	2455		44	1739	1530	2411
	17	1726	1669	2457		45	1740	1533	2421

SAMPLES : H-1562, L-197, mercury vials 2420

TEST DATE: 10-24-13
 TEST UNIT: No. 4
 TEST START TIME:

Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)	Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)
SUPRE-3	46	1745	1534	2343	SUPRE-3	74	172	1557	2415
	47	1746	1536	2340		75	171	1555	2335
	48	1750	1535	2328		76	164	1550	2408
	49	198	1539	2416		77	174	1553	2399
SAMPLE	50	199	1559	2330		78	167	1526	2405
	51	191	1538	2245		79	165	1554	2365
	52	196	1537	2325		80	153	1551	2370
	53	188	1527	2347		81	168	1528	2362
	54	193	1558	2406		82	159	1567	2366
	55	192	1523	2412		83	162	1552	2392
	56	194	1524	2338		84	154	1566	2382
	57	186	1540	2324		85	173	1565	2360
	58	200	1541	2344		86	166	1569	2372
	59	182	1542	2346		87	161	1617	2380
SAMPLE	60	185	1521	2339		88	163	1571	2397
	61	187	1522	2356		89	158	1568	2377
	62	189	1519	2329		90	157	1579	2388
	63	183	1545	2407		91	177	1570	2389
	64	195	1543	2409		92	152	1574	2391
	65	184	1544	2401		93	150	1577	2383
	66	190	1518	2404		94	155	1573	2373
	67	176	1546	2403		95	138	1572	2367
SAMPLE	68	181	1520	2410		96	146	1580	2371
	69	179	1547	2414		97	145	1581	2384
	70	175	1548	2400		98	143	1582	2381
	71	180	1525	2402		99	137	1575	2376
	72	178	1549	2419		100	166	1583	2393
	73	170	1556	2422		101	151	1578	2394

Sample = H 1561 L 169 H 2398

TEST DATE: 10-24-13
 TEST UNIT: No. 4
 TEST START TIME:

Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)	Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)
SdPt3-3	102	134	1576	2357	SdPt3-3	130	120	1611	2292
	103	139	1584	2365		131	115	1621	2273
	104	144	1585	2355		132	122	1622	2278
	105	142	1586	2374		133	126	1618	2248
	106	149	1587	2396		134	114	1624	2275
	107	141	1588	2387		135	104	1599	2256
	108	129	1589	2368		136	117	1626	2286
	109	133	1590	2359		137	101	1602	2284
	110	148	1591	2369		138	127	1600	2296
	111	125	1607	2375		139	106	1625	2257
	112	118	1594	2385		140	109	1601	2288
	113	124	1595	2361		141	119	1628	2279
	114	116	1596	2351		142	105	1627	2252
	115	140	1597	2364		143	135	1604	2265
	116	156	1608	2395		144	102	1605	2284
	117	123	1593	2386		145	128	1603	2261
	118	147	1592	2378		146	103	1615	2259
	119	132	1610	2350					
	120	136	1609	2390					
	121	131	1613	2379					
	122	130	1612	2354					
	123	110	1598	2356					
	124	121	1616	2352					
	125	113	1606	2349					
	126	111	1614	2358					
	127	108	1619	2353					
	128	112	1623	2294					
	129	107	1620	2289					

SAMPLE

SAMPLE

SAMPLE 1574

SAMPLE

SAMPLES: L-330, H-502, mercury vial 2266
 L-102, H-1605, vial 2224

TEST DATE: 10-25-13
 TEST UNIT: NO. 4
 TEST START TIME:

U4R3A

Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)	Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)
SolPtt-1	1				SolPtt-1	29			
	2					30			
	3					31			
	4					32			
	5					33			
	6					34			
	7					35			
	8					36			
	9					37			
	10					38			
	11					39			
	12					40			
	13					41			
	14					42			
	15					43			
	16					44			
	17					45			
	18					46			
	19					47			
	20					48			
	21					49			
	22					50			
	23					51			
	24					52			
	25					53			
	26					54			
	27					55			
	28					56			

SAMPLE

SAMPLE

SAMPLE

10:59
10:55

09:35

TEST DATE: 10-25-13
 TEST UNIT: No. 4
 TEST START TIME:

Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)	Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)
PtSdl-1	57				PtSdl-1	85			
	58					86			
	59					87			
	60					88			
	61					89			
	62					90			
	63					91			
	64					92			
	65					93			
	66					94			
	67					95			
	68					96			
	69					97			
	70					98			
	71					99			
	72					100			
	73					101			
	74					102			
	75					103			
	76					104			
	77					105			
	78					106			
	79					107			
	80					108			
	81					109			
	82					110			
	83					111			
	84					112			
						113			
						114			

SAMPLE

SAMPLE

SAMPLE

SAMPLE

SAMPLE

0:40

SAMPLE

0:50

SAMPLE

TEST DATE: ~~10-25-13~~ 10-25-13
 TEST UNIT: No. 4
 TEST START TIME:

4423B

Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)	Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)
SolPA3-3	1	103	78	2285	SolPA3-3	29	1256	536	2253
	2	315	82	2291		30	1265	500	2287
	3	128	4	2290		31	1261	540	2282
	4	325	79	2277		32	1251	539	2212
	5	324	1	2293		33	1262	537	2201
	6	329	7	2276		34	1257	531	2211
	7	326	77	2274		35	1264	527	2270
	8	328	18	2272		36	1269	520	2235
	9	310	81	2251		37	1259	543	2225
	10	314	5	2281		38	1267	491	2217
	11	317	1103	2297		39	1270	493	2207
	12	306	1615	2283		40	1266	533	2236
	13	308	3	2267		41	1268	530	2237
	14	309	510	2280		42	1263	523	2229
	15	323	505	2298		43	1255	532	2232
	16	304	541	2295		44	1279	519	2234
	17	303	504	2250		45	1280	534	2222
	18	311	509	2259		46	1273	525	2231
	19	312	503	2261		47	1272	544	2244
	20	322	508	2268		48	1277	522	2271
	21	305	501	2254		49	1276	512	2245
	22	302	506	2262		50	1283	524	2242
	23	307	507	2255		51	1275	514	2239
	24	301	526	2264		52	1299	516	2220
	25	1253	542	2258		53	1291	528	2223
	26	1254	529	2263		54	1285	521	2233
	27	1252	538	2260		55	1271	517	2240
	28	1258	535	2269		56	1287	513	2215

SAMPLE

SAMPLE

SAMPLE

SAMPLES: L-1281, H-496, Hg vial 2219

TEST DATE: 10-25-13
 TEST UNIT: No. 4
 TEST START TIME:

Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)	Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)
601P3-3	57	1260	515	2200	601P3-3	85	1314	1453	2170
	58	1293	511	2243		86	1300	1454	2169
	59	1288	498	2247		87	1320	1455	2173
	60	1284	497	2241		88	1315	1458	2151
	61	1278	495	2238		89	1322	1459	2159
	62	1290	494	2230		90	1326	1460	2154
	63	1282	499	2226		91	1327	1461	2161
	64	1296	486	2227		92	1316	1464	2165
	65	1295	490	2221		93	1319	1457	2153
	66	1286	489	2203		94	1324	1469	2149
	67	1274	518	2218		95	1323	1468	2150
	68	1297	485	2202		96	1311	1462	2155
	69	1298	492	2206		97	1312	1471	2171
	70	1292	487	2214		98	1325	1475	2184
	71	1301	484	2216		99	1321	1463	2156
	72	1294	489	2208		100	1342	1479	2174
	73	1289	1443	2249		101	1339	1482	2195
	74	1303	1441	2228		102	1331	1481	2158
	75	1302	1442	2246		103	1336	1478	2167
	76	1307	1444	2209		104	1337	1470	2166
	77	1308	1445	2204		105	1334	1466	2157
	78	1309	1446	2199		106	1330	1474	2160
	79	1310	1447	2205		107	1328	1467	2178
	80	1304	1448	2210		108	1335	1473	2152
	81	1305	1449	2176		109	1329	1472	2182
	82	1306	1450	2213		110	1338	1477	2191
	83	1317	1451	2187		111	1333	1465	2181
	84	1318	1452	2163		112	1332	1491	2193

SAMPLE

SAMPLE

SAMPLE

SAMPLES: L-1315, H-1450, Hg vial 2164

TEST DATE: 10-25-13

TEST UNIT: No. 4

TEST START TIME:

91

Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)	Receiver #	Charge #	Pb Spike (2.6 lbs.)	Cl Spike (5.8 lbs.)	Hg Spike (10 ml)
SolP3-3	113	1343	1487	2180	SolP3-3	141	1482	1388	2104
	114	1344	1492	2188		142	1479	1384	2107
	115	1354	1486	2183		143	1467	1385	2113
	116	1349	1490	2197		144	1466	1386	2112
	117	1350	1484	2162		145	1468	1394	2103
	118	1348	1483	2196		146	1464	1393	2106
	119	1347	1485	2175		147	1462	1389	2115
	120	1345	1480	2172					
	121	1341	1488	2194					
	122	1340	1489	2177					
	123	1346	1476	2186					
	124	1453	1383	2130					
	125	1461	1500	2177					
	126	1458	1381	2120					
	127	1469	1494	2192					
	128	1451	1387	2131					
	129	1460	1499	2190					
	130	1452	1498	2185					
	131	1476	1495	2168					
	132	1457	1382	2189					
	133	1459	1496	2198					
	134	1456	1497	2116					
	135	1455	1493	2179					
	136	1465	1392	2081					
	137	1475	1395	2101					
	138	1480	1398	2105					
	139	1470	1390	2102					
	140	1463	1391	2122					

SAMPLE 16:41

SAMPLE

SAMPLE

SAMPLE

SAMPLES: L-1471, H-1397, Hg vial 2139
L-1464, H-1389, Hg vial 2103

Unit 4 Field Data Sheets for Chromic Acid Spiking

4.4 R13

Y

CHROMIC ACID SPIKE FEED - Target Rate: ^{35%} 250 pounds/hour

Date 10-23-13

Incinerator No. 4

Test Run 1 (13)

Operator MADRESIAN

me
ST
PAT

COMPUTER TIME	STOP WATCH TIME	SCALE (LBS)	CHROMIC FED (LBS)	PUMP SETTING	COMPUTER TIME	STOP WATCH TIME	SCALE (LBS)	CHROMIC FED (LBS)	PUMP SETTING
11:57A	0	1664		4.0 psi	1:17 P.M.	1:20	1254	24	
11:58A	1	1607	7		1:22 P.M.	1:25	1234	20	
12:00A	3	1591	16		1:27 P.M.	1:30	1217	17	
12:02 P.M.	5	1580	11		1:32 P.M.	1:35	1196	21	
12:04 P.M.	7	1571	9	1 st HR →	1:36 P.M.	1:39 P.M.	1176	20	
12:07 P.M.	10	1560	11		1:41 P.M.	1:44**	1155	21	
12:12 P.M.	15	1540	20	4.5 psi	1:46 P.M.	1:49	1134	21	
12:17 P.M.	20	1518	22		1:51 P.M.	1:54	1112	22	
12:22 P.M.	25	1495	23		1:56 P.M.	1:59	1091	21	
12:27 P.M.	30	1474	21		2:01 P.M.	2:04	1069	22	
12:30 P.M.	33	1461	13		2:06 P.M.	2:09	1048	21	
12:31 P.M.	34	1456	5		2:11 P.M.	2:14 P.M.	1026	22	
12:32 P.M.	35	1452	4		2:16 P.M.	2:19	1005	21	
12:33 P.M.	36	1448	4		2:21 P.M.	2:24	984	21	
12:34 P.M.	37	1443	5		2:26	2:29	962	22	
12:35 P.M.	38	1439	4		2:31	2:34	941	21	
12:36 P.M.	39	1434	5	2 nd HR →	2:36	2:39	919	22	
12:40 P.M.	43 *	1416	18		2:41	2:44	898	21	
12:45 P.M.	48	1394	22		2:46	2:49	877	21	
12:47 P.M.	50	1386	8		2:51	2:54	856	21	
12:52 P.M.	55	1364	22		2:56	2:59	835	21	
12:57	60 (1:01)	1342	22		3:01	3:04	814	21	
1:02 P.M.	65 (1:05)	1321	21		3:06	3:09	793	21	
1:07 P.M.	1:10	1299	22		3:11 P.M.	3:14	772	21	
1:12 P.M.	1:15	1278	21		3:16 P.M.	3:19**	750	22	

258 lbs

128

257 lbs

126

ADDED TWO 55 GAL DRUMS CHROMIC ACID 595.35 NET 155 EACH BATCH CH13E00393 (BOTH)

* 1st CR. spike ~ 12:37 P.M.

** 3rd CR. spike @ ~ 3:18 P.M.

** 2nd CR. spike @ 1:40 P.M.

U4 R2B

35%
CHROMIC ACID SPIKE FEED - Target Rate: 250 pounds/hour

Date 10-24-13

Incinerator No. 4

Test Run 2 (2B)

Operator MADESIAN

COMPUTER TIME	STOP WATCH TIME	SCALE (LBS)	CHROMIC FED (LBS)	PUMP SETTING	COMPUTER TIME	STOP WATCH TIME	SCALE (LBS)	CHROMIC FED (LBS)	PUMP SETTING
11:55 AM	0	1506		46 Pk	12:55 PM	2:00	995	20	46 Pk
11:56 AM	1	1503	3		12:00 PM	2:05	974	21	
12:00 Noon	5 MIN	1486	17		12:05 PM	2:10	953	21	
12:05 P.M.	10 MIN	1465	21		12:10 PM	2:15	932	21	
12:10 PM	15 MIN	1443	22		12:15 PM	2:20	911	21	
12:15 P.M.	20	1421	22		12:20 PM	2:25	889	22	
12:20 P.M.	25	1399	22		12:25 P.M.	2:30	867	22	
12:25 P.M.	30	1377	22		12:30 P.M.	2:35	846	21	
12:30 P.M.	35	1355	22	2 HR →	12:35 P.M.	2:40	824	22	254 lbs
12:35 P.M.	40	1333	22		12:40 P.M.	2:45	803	21	
12:40 P.M.	45	1311*	22		12:45 P.M.	2:50	780	23	
12:45 P.M.	50	1289	22		12:50 P.M.	2:55	758	22	
12:50 P.M.	55	1267	22		12:55 P.M.	3:00	741	17	
12:55 P.M.	1:00 HR	1246	21		1:00 P.M.	3:05	718	23	
1:00 P.M.	1:05	1224	22		1:05 P.M.	3:10	696	22	128
1:05 P.M.	1:10	1203	21		1:10 P.M.	3:15	678	18	
1:10 P.M.	1:15	1182	21	METALS END →	1:15 P.M.	3:20	648	30	
1:15 P.M.	1:20	1161	21		1:20 P.M.	3:25	624	24	
1:20 P.M.	1:25	1141	20		1:25 P.M.	3:30	602	22	
1:25 P.M.	1:30	1120	21		1:30 P.M.	3:35	577	25	
1:30 P.M.	1:35	1099	21	3 HR →	1:35 P.M.	3:40	565	12	259 lbs
1:35 P.M.	1:40	1078	21	255 lb	1:40 P.M.	3:45	546	19	
1:40 P.M.	1:45	1056	22	FOR →	1:45 P.M.	3:50	525	21	
1:45 P.M.	1:50	1036	20		1:50 P.M.				
1:50 P.M.	1:55	1015	21						

LOADED 1 DRUM AND ABOUT 1/2 OF ANOTHER 55 GAL DRUM BATCH CH13E00 343 FOR BOTH DRUMS

1st CR sample @ 12:36 P.M. 3rd CR sample @ 3:16 P.M.
 2nd CR sample @ 1:37 P.M. ~ 3 PM wind picking up - Gust getting windy

44 R3B

1/2

35%
 CHROMIC ACID SPIKE FEED - Target Rate: 250 pounds/hour

Date 10/25/13

Incinerator No. 4

Test Run 3 (3B)

Operator M. A. TUESIAN

START
 MOUNT

S.O.R.

HR

COMPUTER TIME	STOP WATCH TIME	SCALE (LBS)	CHROMIC FED (LBS)	PUMP SETTING	COMPUTER TIME	STOP WATCH TIME	SCALE (LBS)	CHROMIC FED (LBS)	PUMP SETTING
12:55 PM	0	1395	-	50 psi	2:55 PM	2:00	881	20	
1:00 PM	2	1386	9		3:00 PM	2:05	861	20	
1:05 PM	5	1373	13		3:05 PM	2:10	840	21	
1:10 PM	10	1351	22	RESET 3:11 PM	3:10 PM	2:15	818	22	
1:15 PM	15	1330	21		3:15 PM	2:20	797	21	
1:20 PM	20	1309	21		3:20 PM	2:25	776	21	
1:25 PM	25	1287	22		3:25 PM	2:30	755	21	
1:30 PM	30	1266	21		3:30 PM	2:35	731	24	
1:35 PM	35	1244	22	2 HR	3:35 PM	2:40	710	21	255 lbs
1:40 PM	40	1222	22		3:40 PM	2:45	687	23	
1:45 PM	45 *	1200	22		3:45 PM	2:50	666	21	
1:50 PM	50	1180	20		3:50 PM	2:55	647	19	
1:55 PM	55	1160	20		3:55 PM	3:00	626	21	
2:00 PM	1:00	1140	20		4:00 PM	3:05	606	20	
2:05 PM	1:05	1118	22		4:05 PM	3:10	585	21	
2:10 PM	1:10	1094	24	METALS	4:10 PM	3:15	561	24	
2:15 PM	1:15	1072	22	END @ 1:11	4:15 PM	3:20	539	22	
2:20 PM	1:20	1050	22		4:20 PM	3:25	516	23	
2:25 PM	1:25	1029	21		4:25 PM	3:30	495	21	
2:30 PM	1:30	1008	21		4:30 PM	3:35	475	20	
2:35 PM	1:35	987	21	3 HR	4:35 PM	3:40	454	21	256 lbs
2:40 PM	1:40	965	22	25-765	4:40 PM	3:45	433	21	
2:45 PM	1:45 **	943	22	END	4:41 PM	3:46	429	4	
2:50 PM	1:50	919	24	PUT	4:42 PM	3:47	425	4	
2:55 PM	1:55	901	18		4:43	3:48	420	5	

Filled Chrome tank Remaining 1/2 DRUM ~ 300 lbs BATH CH 13E00343 + 1 Full Drum BATH CH 13G00252. 595.35 lbs Net each 55 GAL DRUM.

* 1st CR sple @ 1:39 PM. *** 3rd CR sple @ 4:36 PM
 ** 2nd CR sple @ 1:37 PM. LAST Chrome Sample ~ 4 PM



5404 Jedmed Ct. - St. Louis, MO 63128
 Business: (314) 845-7778 - Fax: (314) 845-7779

Scale Inspection Report



Customer: VEOLIA ENVIRONMENTAL SERVICES ()
 #7 MOBILE AVENUE
 SAUGET, IL 62201

Description: Class III
 Serial No: 1386300045
 Scale No: N/A
 Divisions: .1 lb

Location: N/A
 MFG / Model: Rice Lake 3201
 Scale Type: Bench
 Capacity: 100 lb

Scale was found In Tolerance: yes no

Shift Test Sides / Corners / Sections	Weights Applied	Scale Reading (As found)	Error (+/-)	Tolerance Maintenance	Scale Reading After Adjustment (As Left)	Accept / Reject

Buildup Weight	Weights Applied	Scale Reading (As found)	Error (+/-)	Tolerance Maintenance	Scale Reading After Adjustment (As Left)	Accept / Reject
	25.0 lb	25.0 lb	+0.0 lb	+/- 0.1 lb		ACCEPT
	50.0 lb	50.0 lb	+0.0 lb	+/- 0.1 lb		ACCEPT
	100.0 lb	100.0 lb	+0.0 lb	+/- 0.2 lb		ACCEPT

Test Procedure follows QSP-09-002 Traceable to SI through NIST #: MO: 822/259883-98 39598 822/274998-07
 Rice Lake: 822/278785-10 681/280058-10

Cal Date: 08/23/2013 Next Cal due: 08/30/2014 Calibration Dates: APR
 Service Technician Registration #: 00061L/30023MO
 Calibrated By Service Technician: Bill Mckinnis Job Queue#: LT224711 Report ID: 88986904

Uncertainty of Measurement provided on request

FOR CUSTOMER USE ONLY

Reviewed By _____ Date Reviewed _____